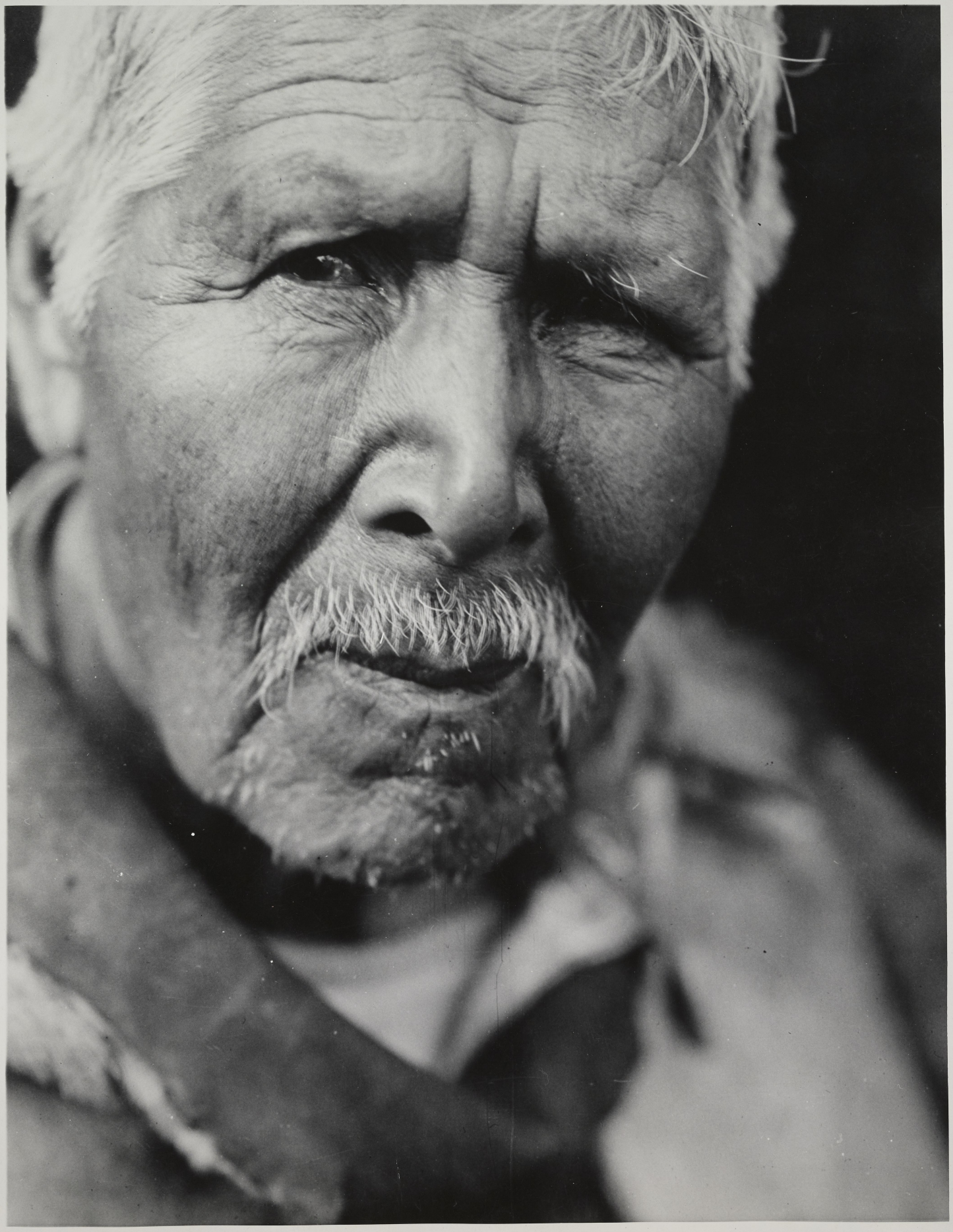
25.

Southwest Museum
Gift of Mr Michael Harrison
"Atsugewi Indian, N. California"
Post Card bears "#25" & legend
"Chief WA-LIT-DOW-WI-LI, Hat River"

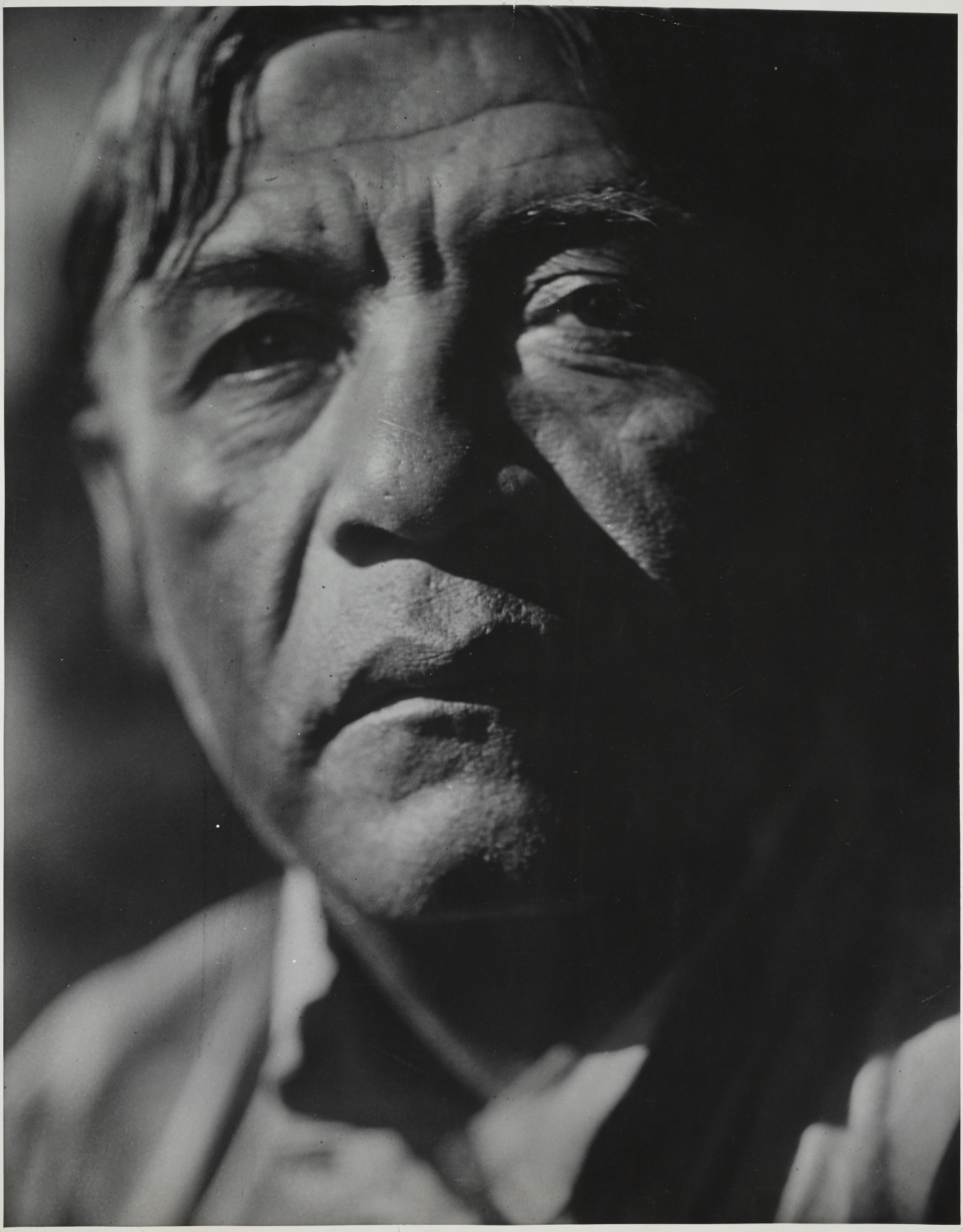
Atsugewi



Southwest Museum (Curtis Copyright)
"Hupa War Chief, (Te May Wit(?)), 'Under the Water' (3814-B)

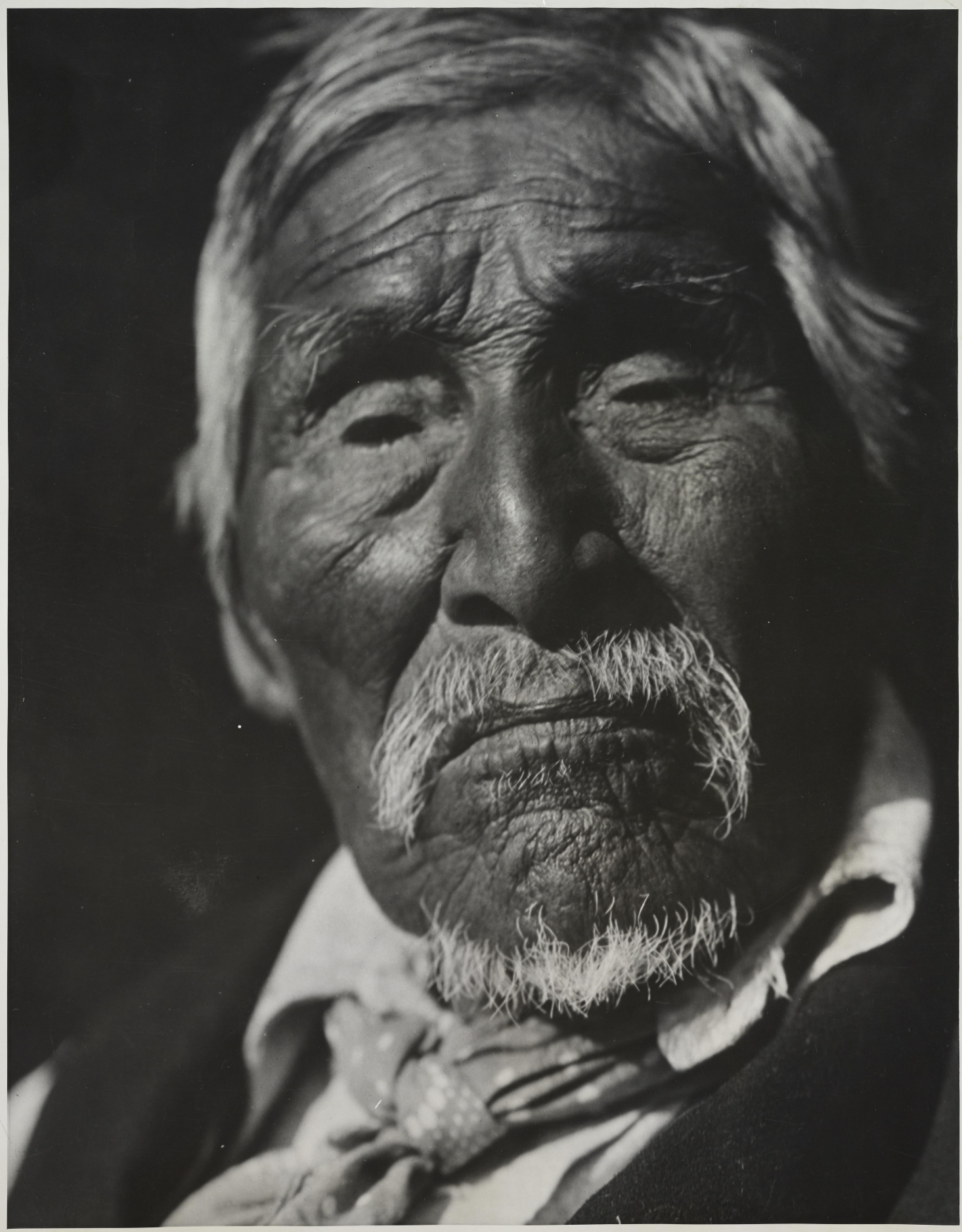
No California

Hupa



Southwest Museum (Curtis Copyright)
"A Coast Pomo Man"

Pomo



Southwest Museum (Curtis Copyright)
"Old Bob – Karok Orleans Bar ("94")

California

Northern

Karok

Southwest Museum
"Washo Man"

Washo

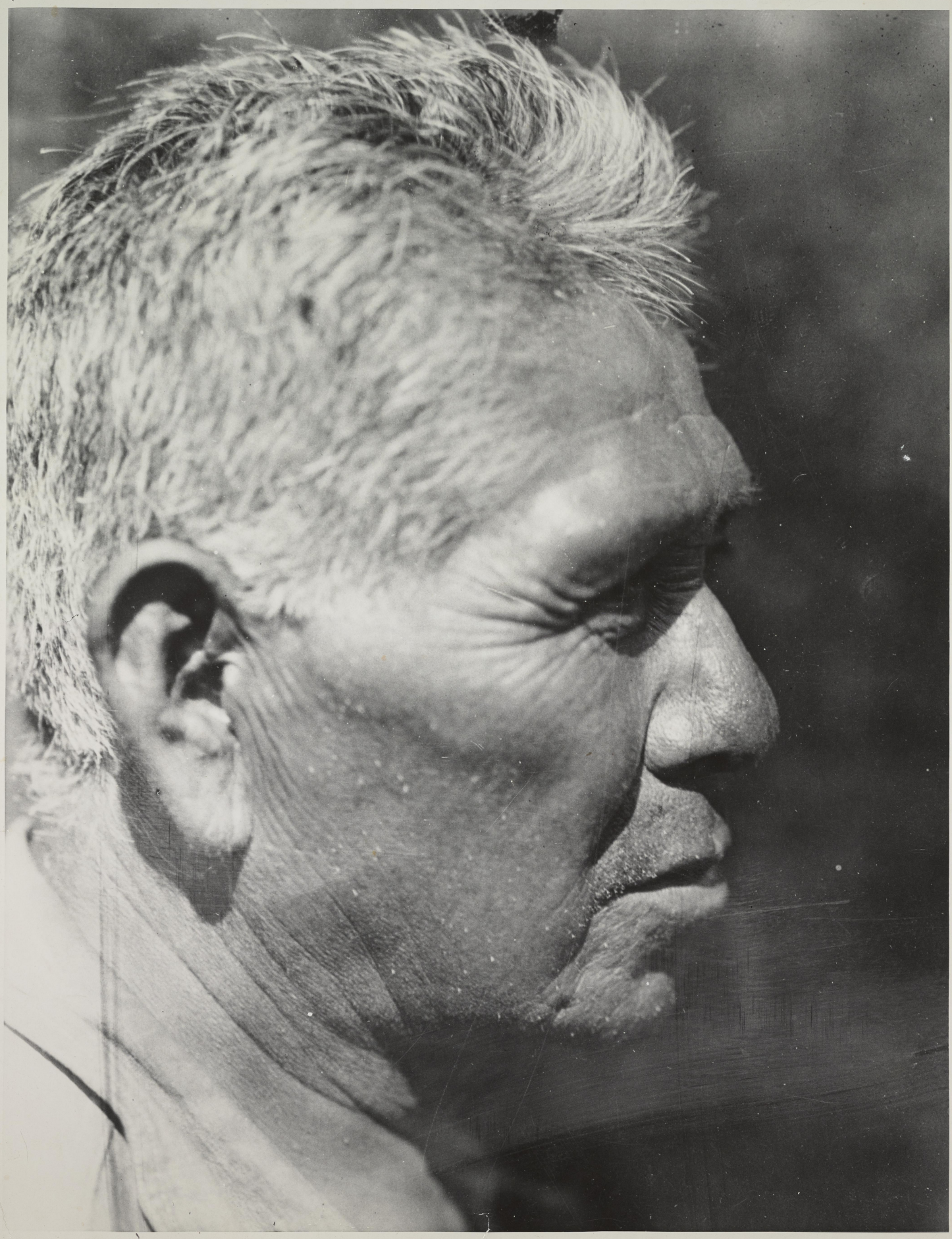
Southwest Museum Collection (Curtis Copyright)
"A Wappo" (# 3977)

Wappo

Southwest Museum (Curtis Copyright)
"Adam Commony – Alturas" (No 3947)

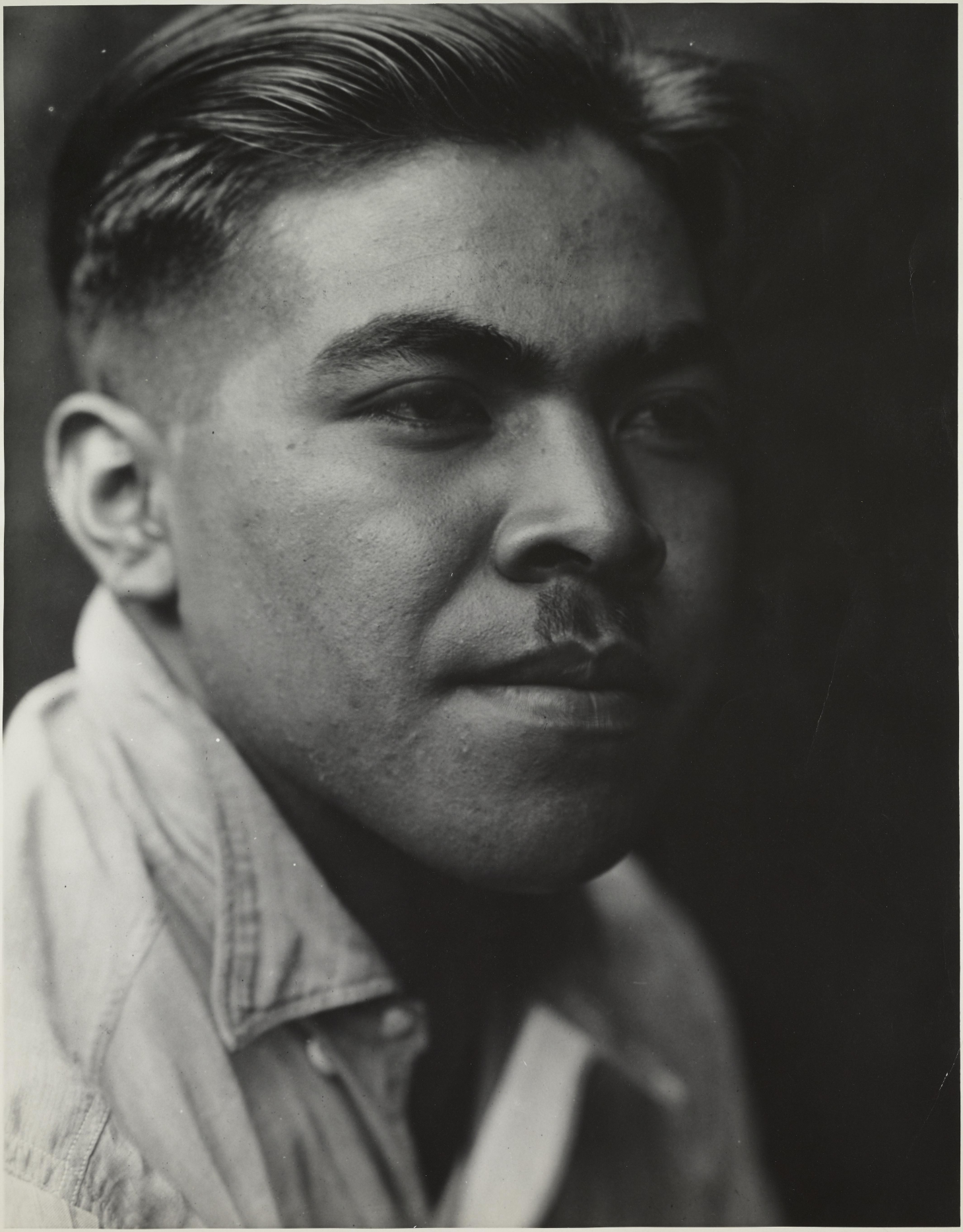
No California ?

Achomawi



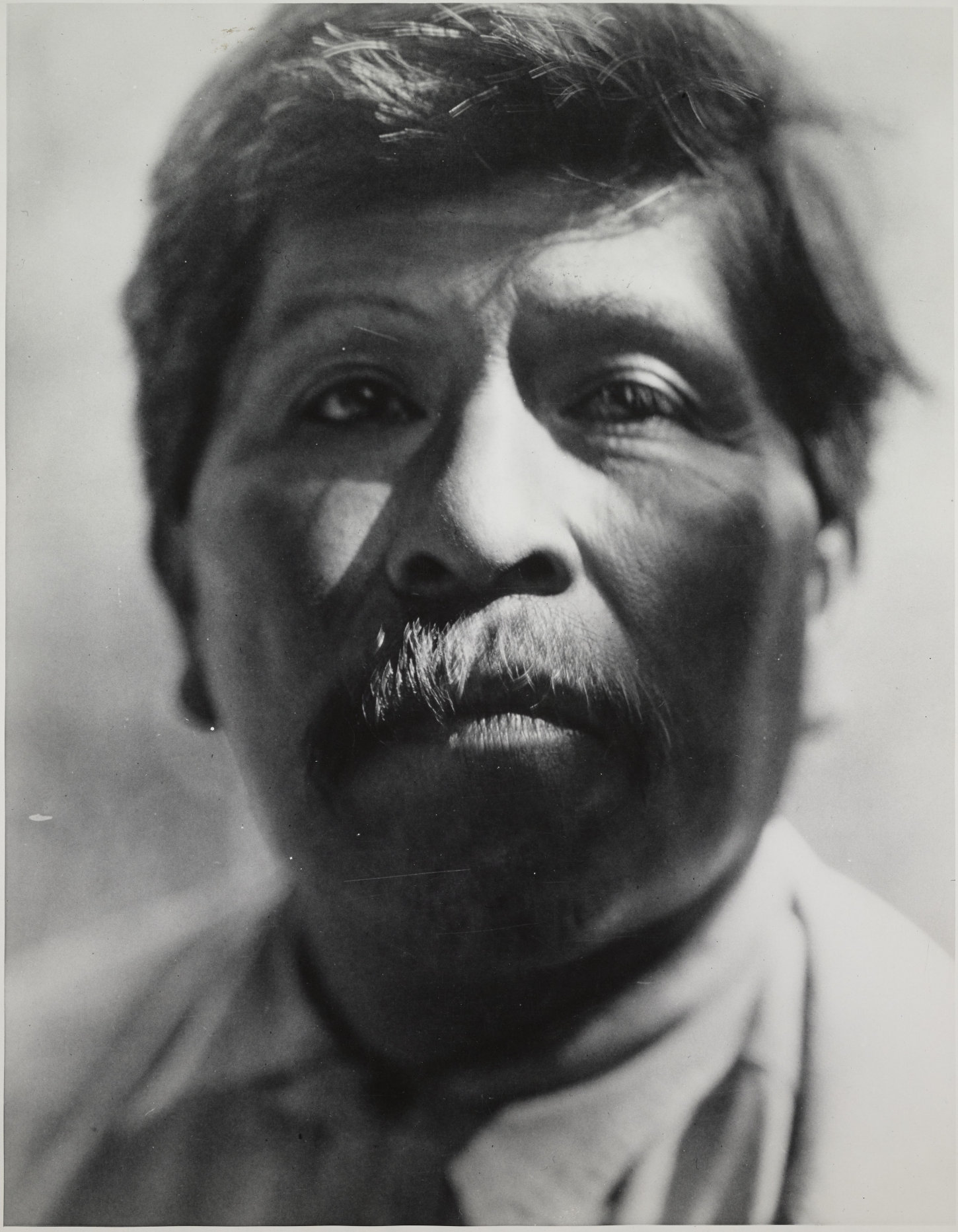
9/6/55 LK

A Southern Miwok



Southwest Museum (Curtis Copy right)
"A Southern Miwok Youth" (No 4030 A Small)

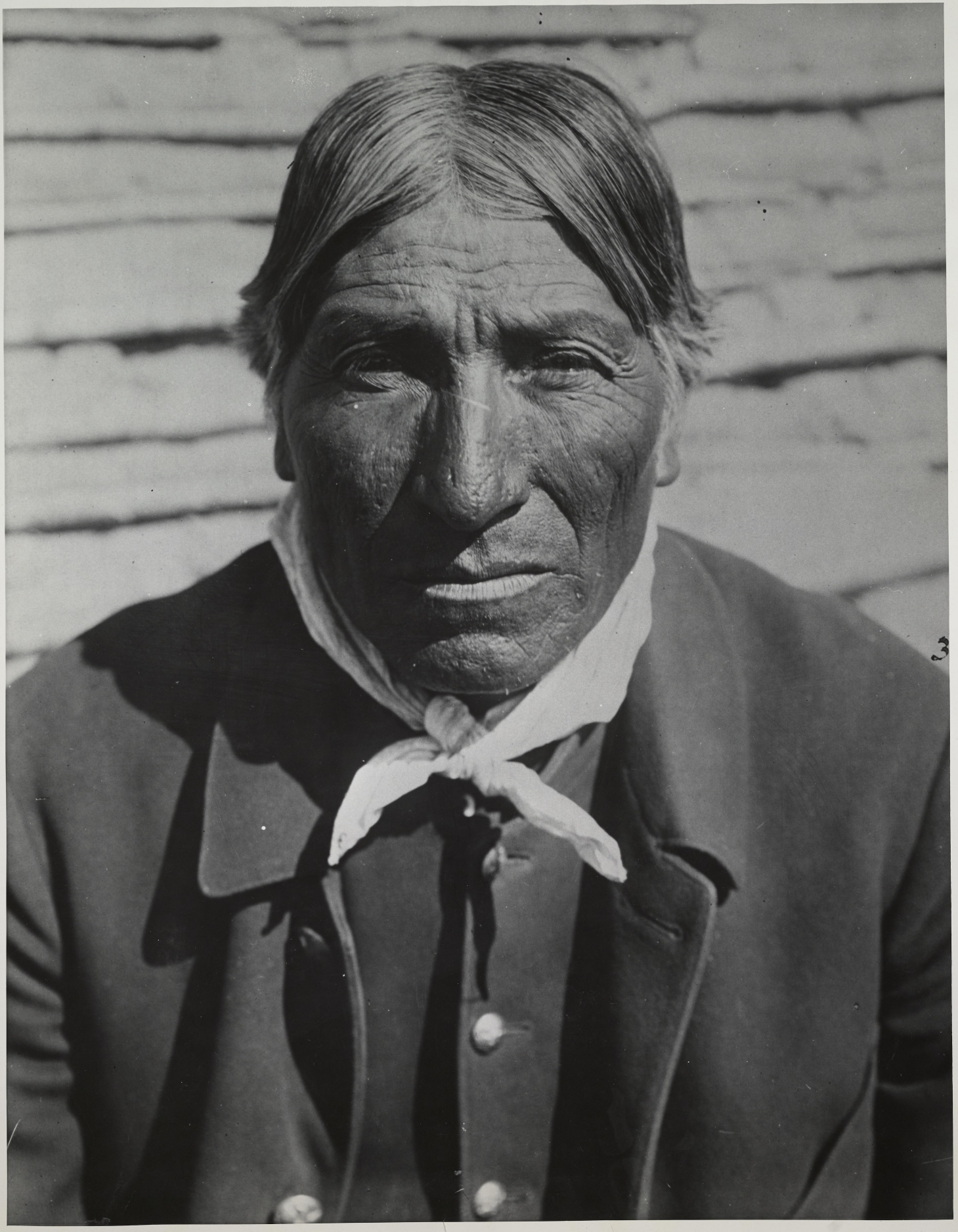
Southern
Miwok



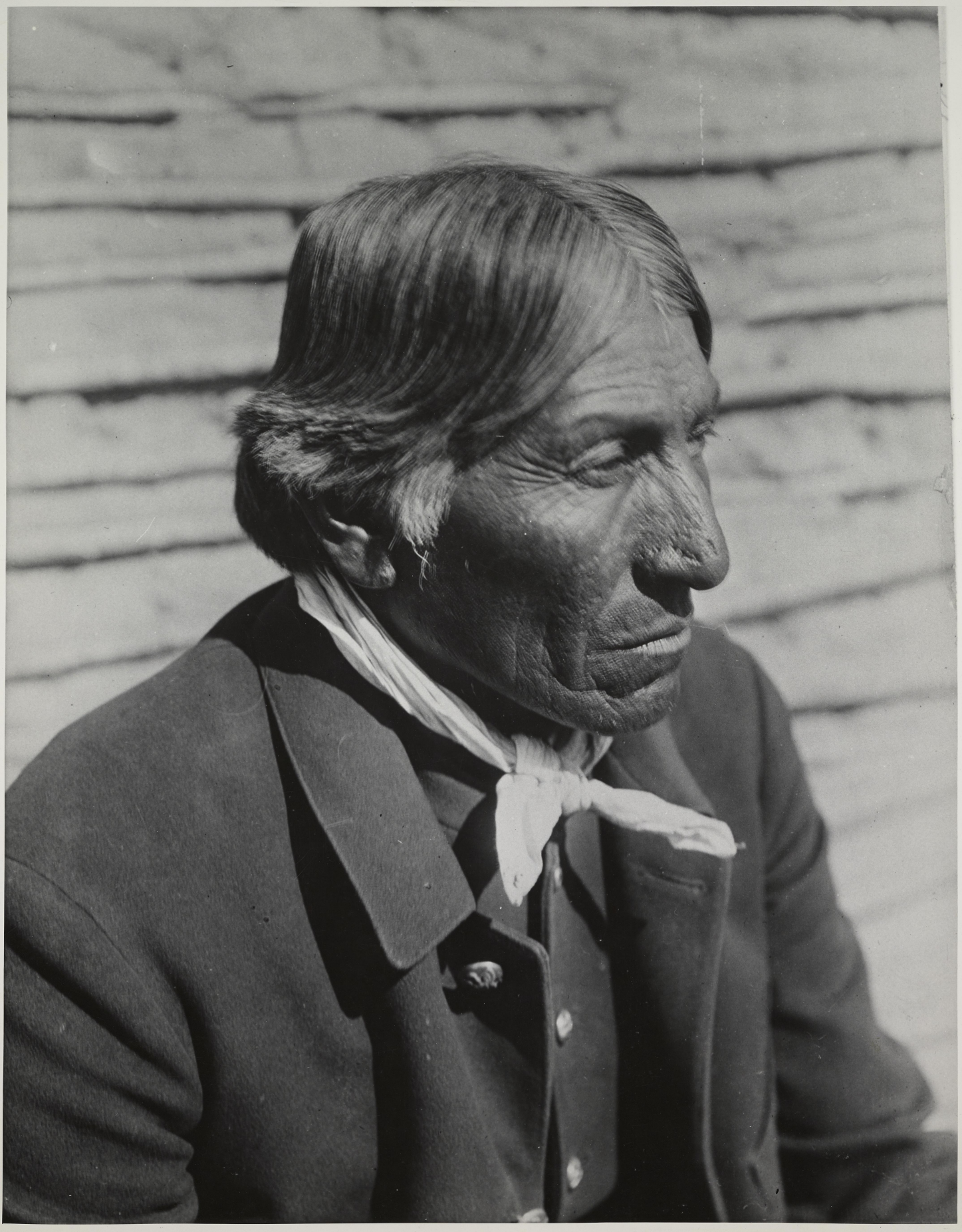
Southwest Museum (Curt's Copyright)
"A Southern Miwok" (No 4018-A)

Southern

Miwok



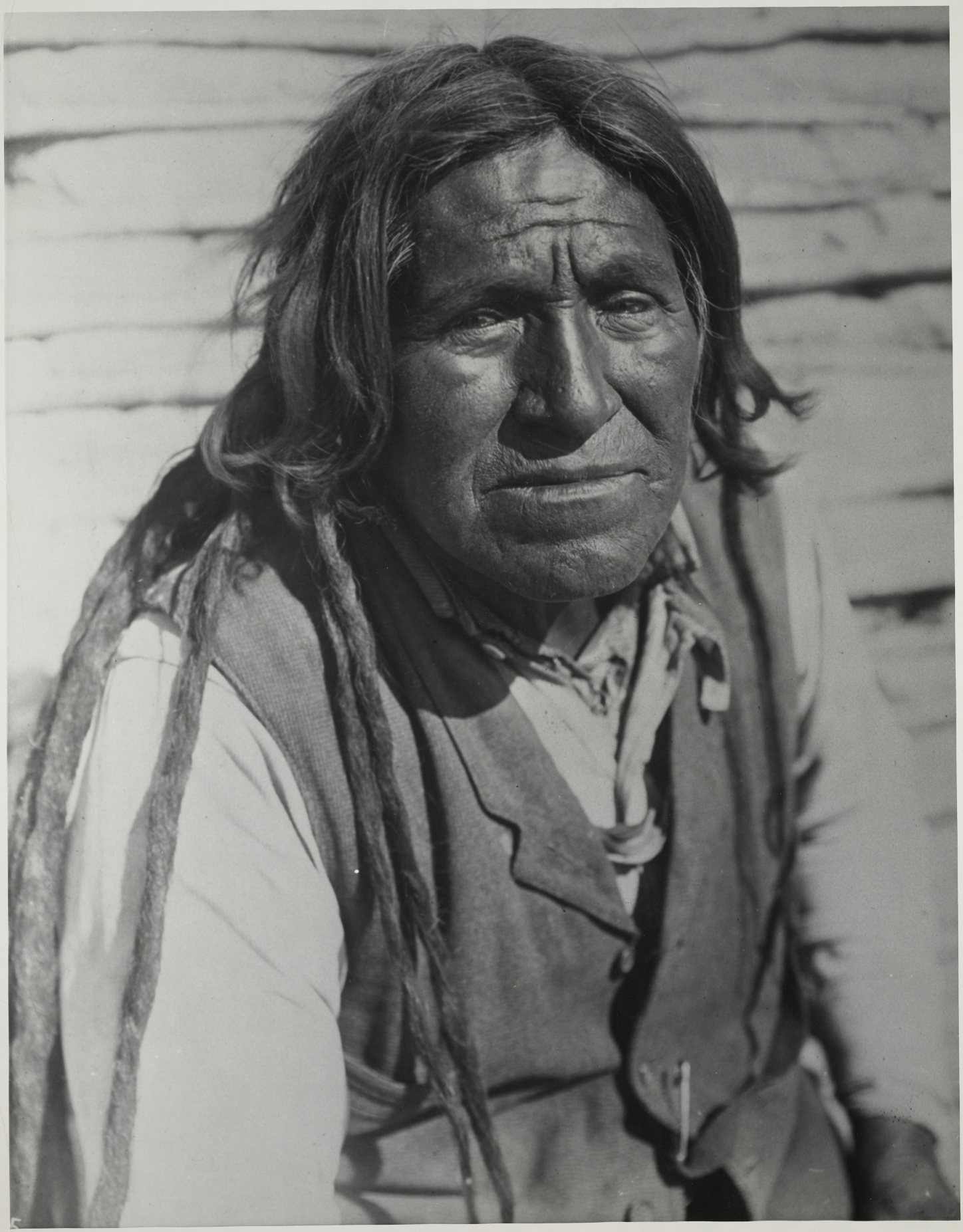
Southwest Museum (G.W. James Collection)
"Yuma" (No 3462)



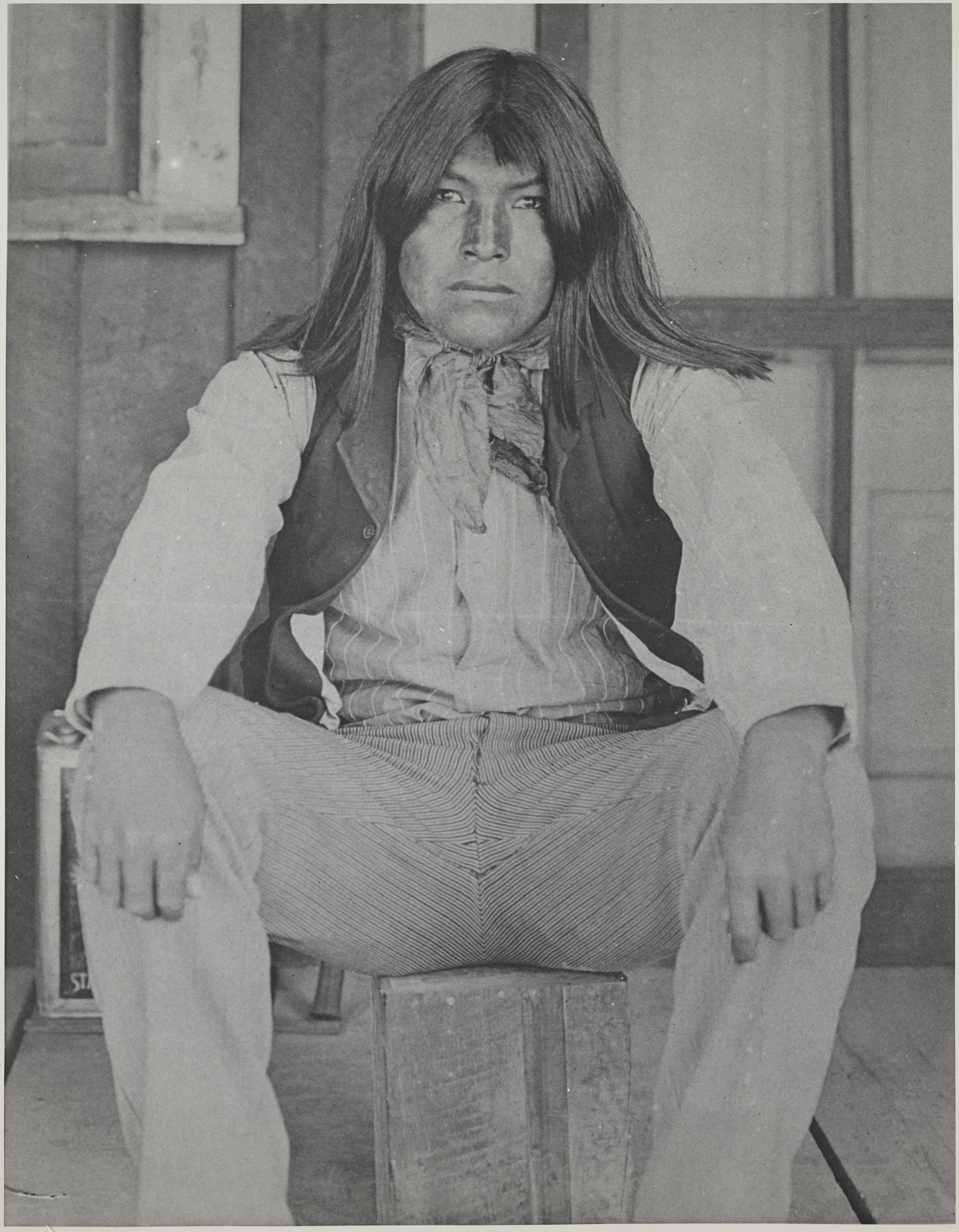
Southwest Museum
G Wharton James collection, 3461
"Yuma"

SE California

Yuma



southwest Museum Collection
"Aged Yuma with hair in Native fashion



Southwest Museum 603-G-9
"Yuma Young Man"

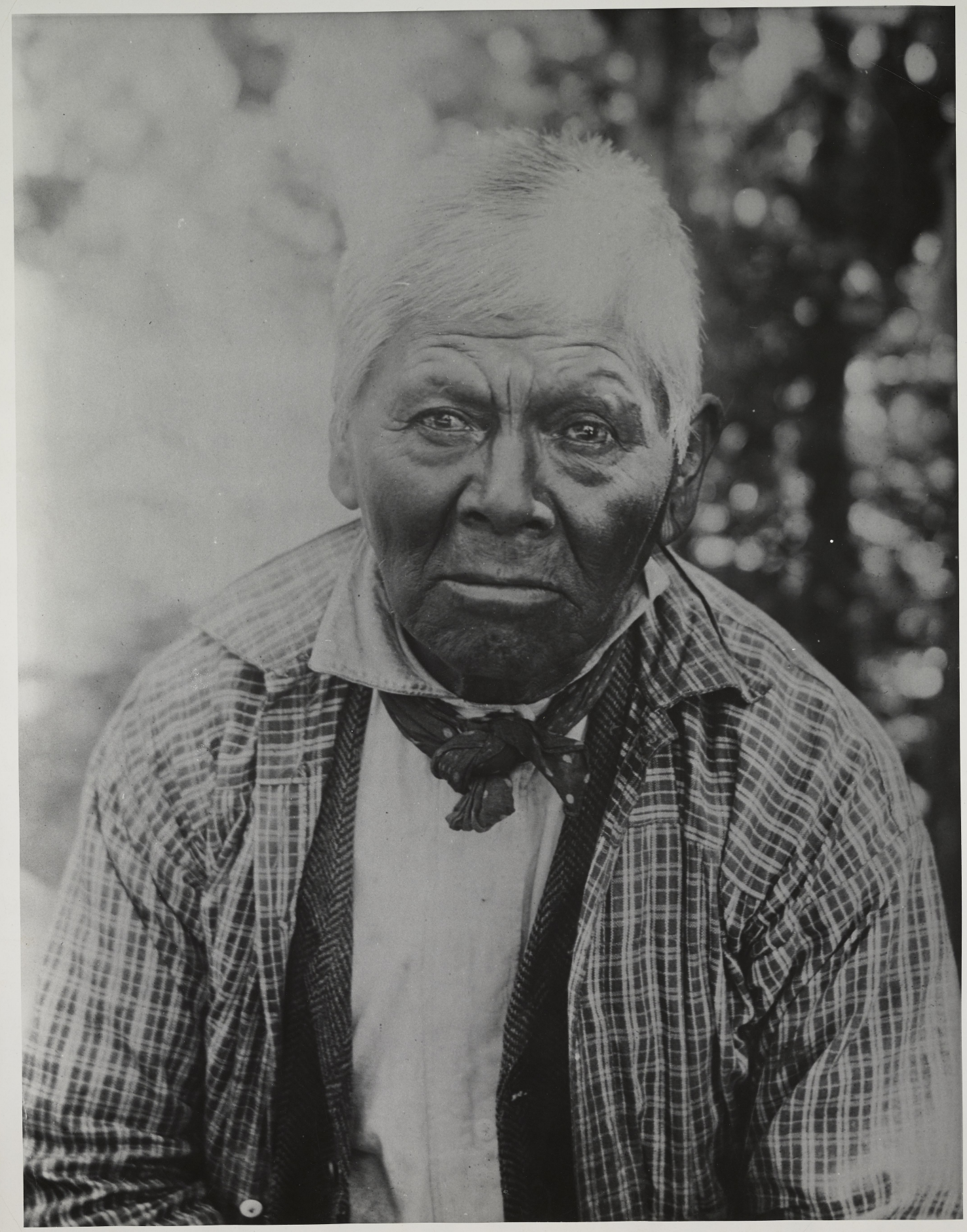
Following written on copy:
9/6/55 L.K.
Yuma Young Man

SE California

Yuma

Southwest Museum
"Paiute Indian Medicine Man"

Paiute



Southwest Museum (G. W. James Collection)
"A Mono Indian"

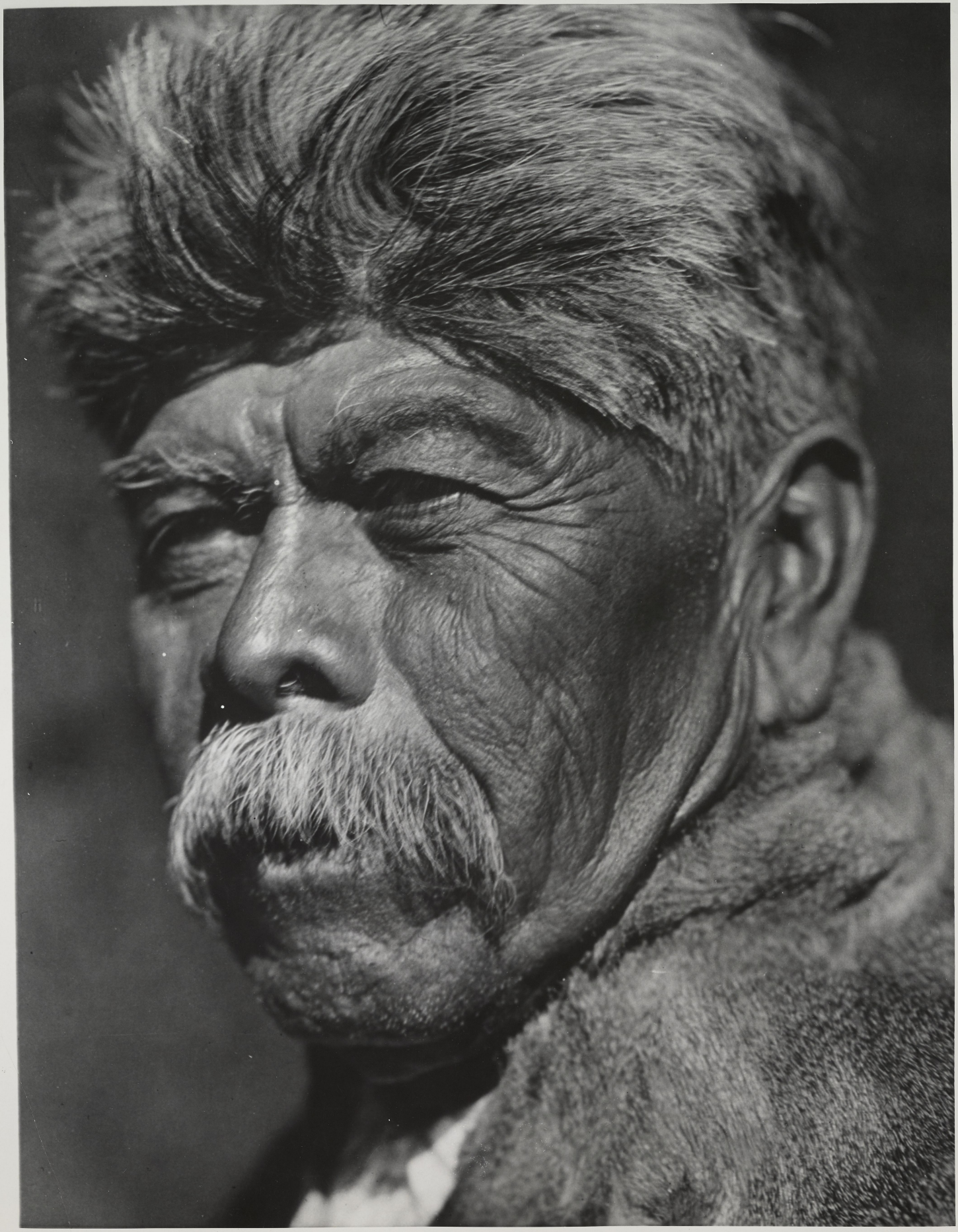
Mono

Southwest Museum (Curt's Copyright)
"A Talowa" (No 3864-A)

Talowa

Southwest Museum
" Mohave or Yuma Man with old style hair dress
on print L.h. border "Manzanita Com" (perhaps at Diegueño Reservation?)

The Following written on back of a copy:
L.K. 9/6/55 Mohave or Yuma
man with old style hair dress



Southwest Museum (Curtis Copyright)
"A Chokchansc Yokuts"

The Following is written on the back of a copy:
L.K. 9/6/55 A Checkchangi Yokuts
Central California Yokuts

Yokuts

Southwest Museum (G.W. James Coll)
"Chemehuevi"

G. Wharton James Collection, 3446
Southwest Museum
"Chemehuevi"

The following is written on the back of a copy:

Via L. Kesterbaum 9/21/55

G. Wharton James Collection, 3446

Southwest Museum

"Chemehuevi."

S.E. California Chemehuevi

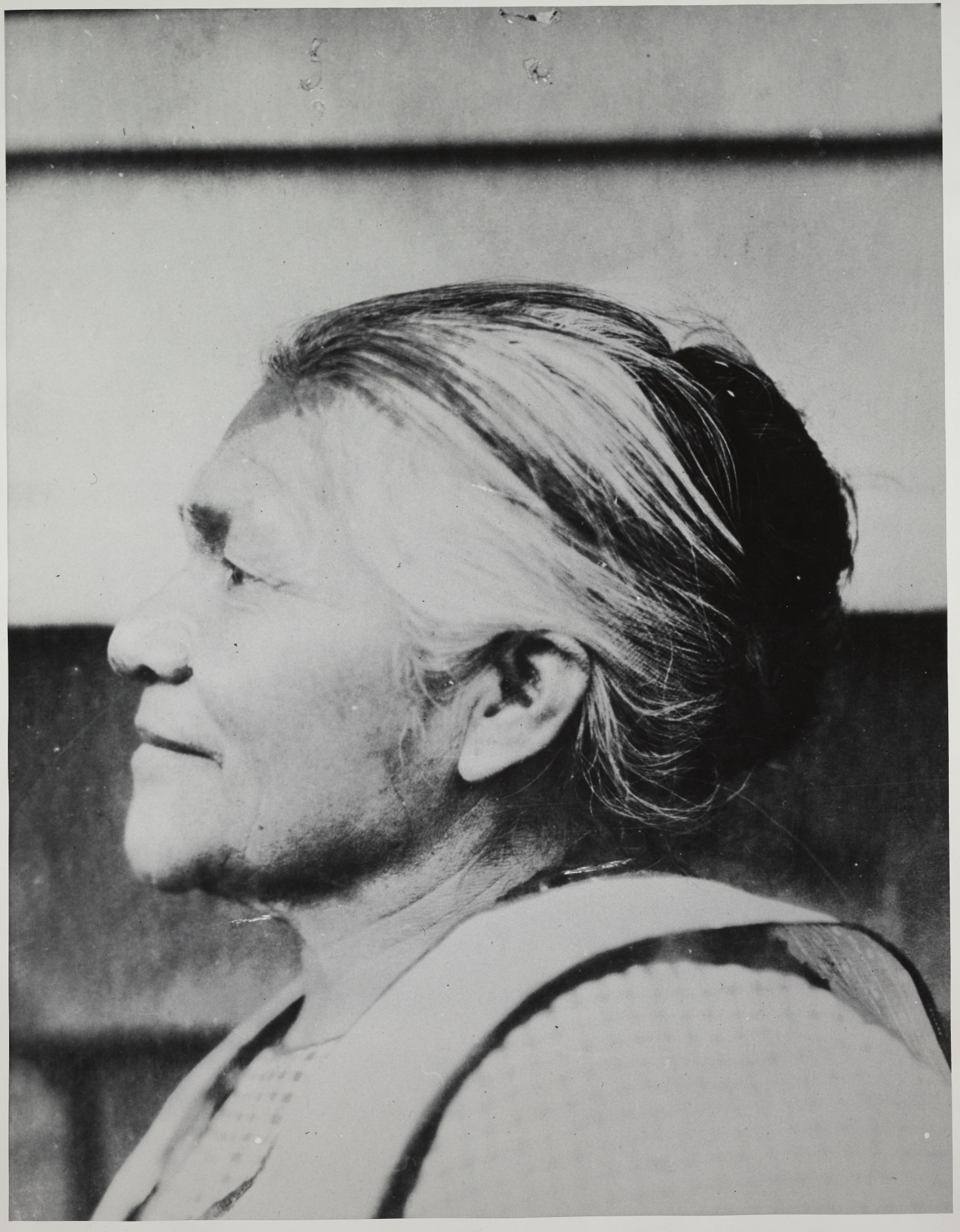
Via L. Kostenbaum 9/1/55 E.C. Pierce collection

A Young Mojave School Graduate

SE California

Mojave

Southwest Museum (C.C. Pierce Collection)
"Yosemite Pointe (?) Basket Maker" (No 1162)



Southwest Museum
"Hupa, Mrs. Phoebe Mad LX (?) Basket-maker Humboldt Co California"

Following written on copy:

9/6/55 L.K.

Hupa Woman
Mrs. Phoebe Madding - basket maker
Humboldt Co., Calif.

Hupa

southwest Museum (Curtis Copy right
"A Kato Woman"

Kato

Southwest Museum (Curtis Copyright)
"A Coast Pomo Woman" No 3974

Coast
Pomo

Southwest Museum
"Washo Woman 'Be-sul'"

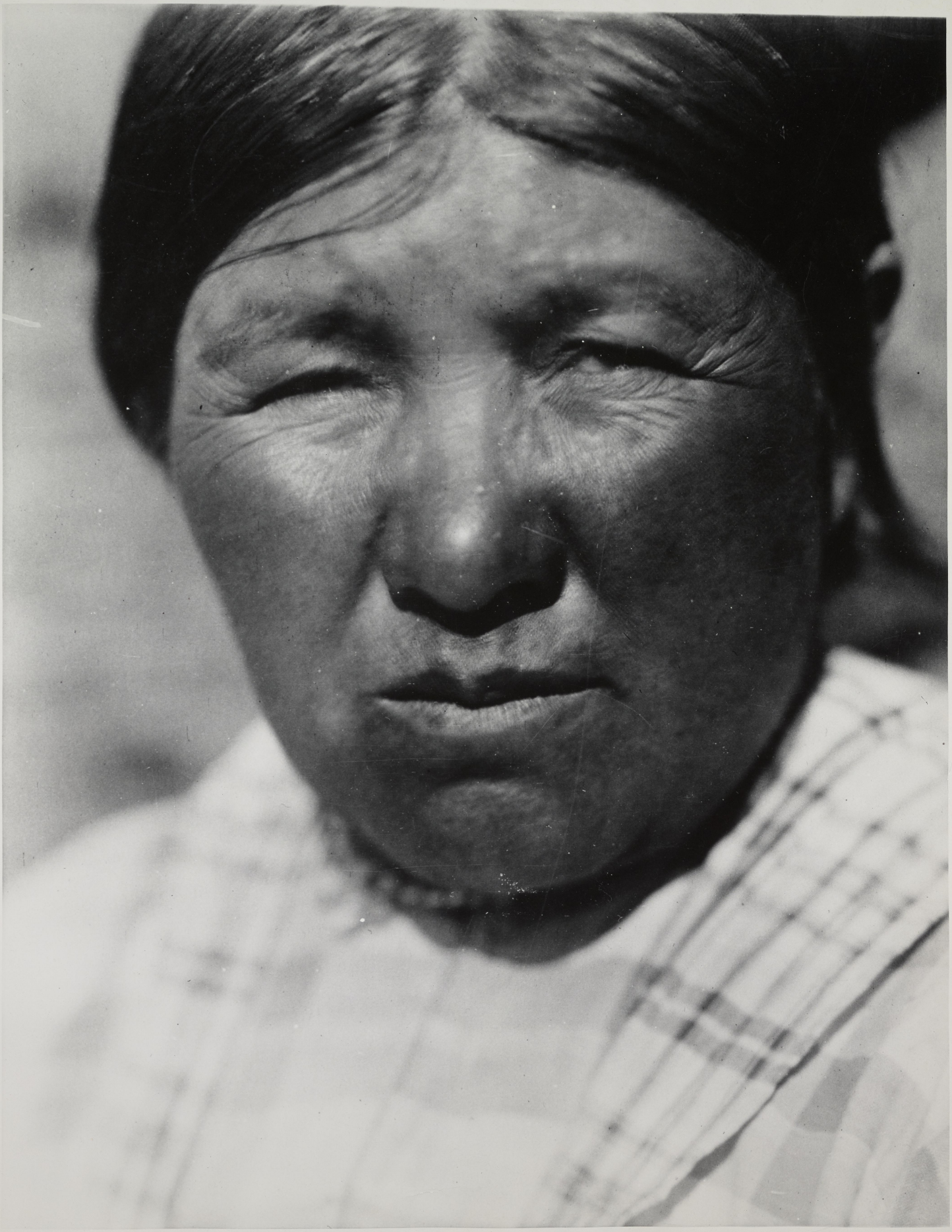
Washo

Southwest Museum (Curtis Copyright)
"A Wappo Woman (#3966)

Following written on copy:
Via L. Kestenbaum 9/21/55
A Wappo Woman

Northern California.

Wappo



Southwest Museum (Curtis Copyright)
" Mrs Jack Williams, Alturas (Achomawi ?)

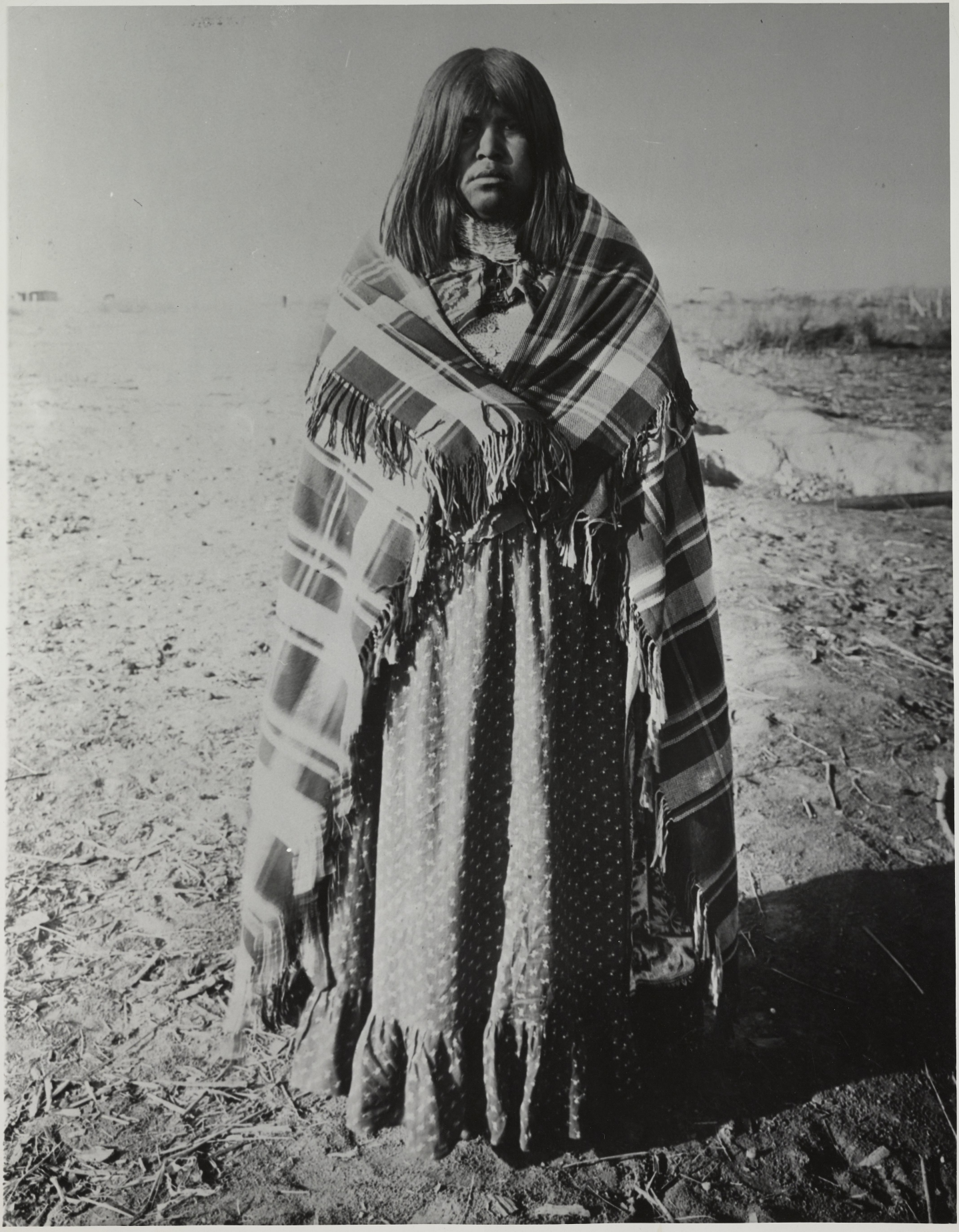
Achomawi

Mohave (?)

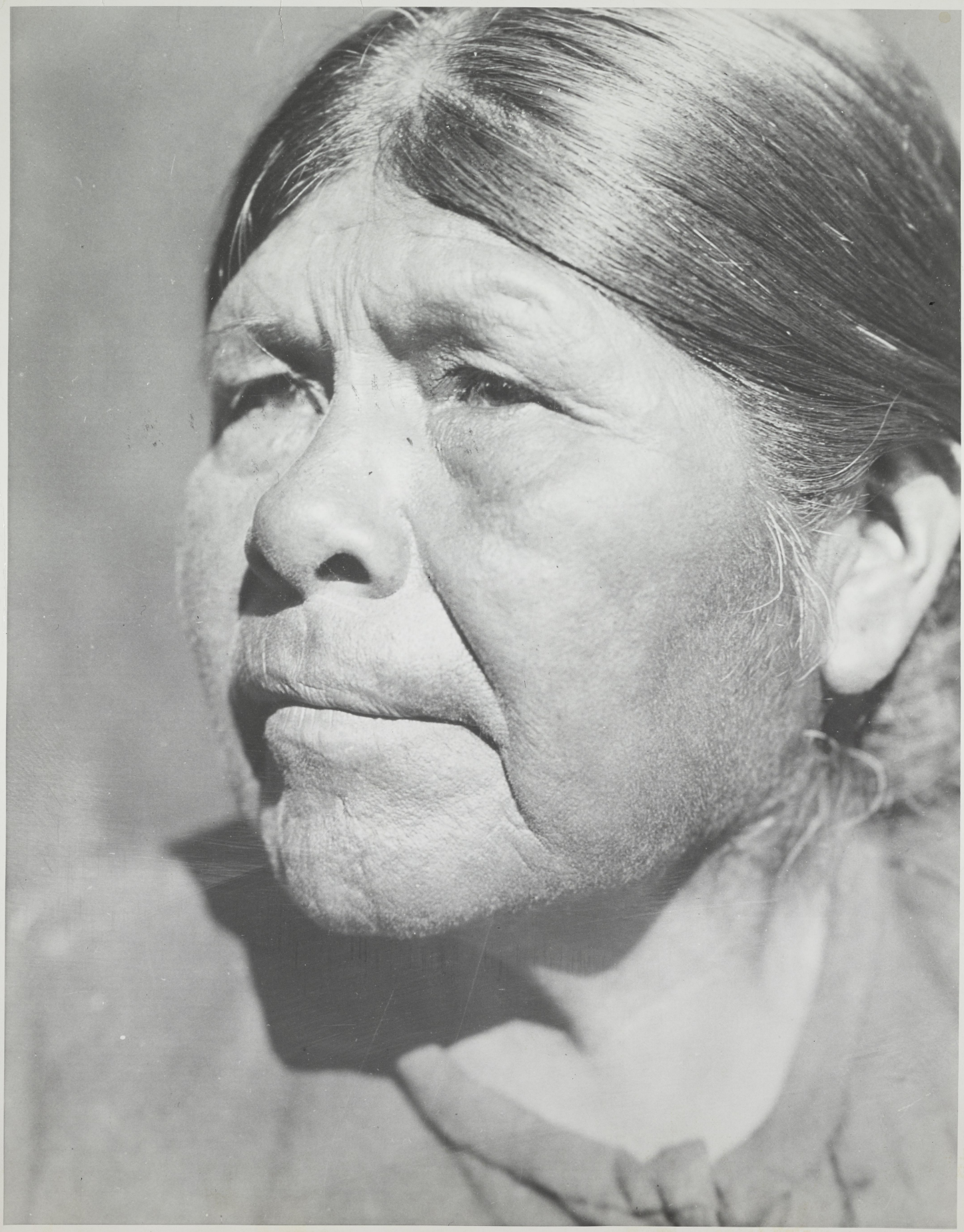
Following written on a copy:
Via L. Kestenbaum 9/21/55
Mohave (?)

S.E. California Mohaves.

Southwest Museum, 603 - G-7
" Mohave (?)



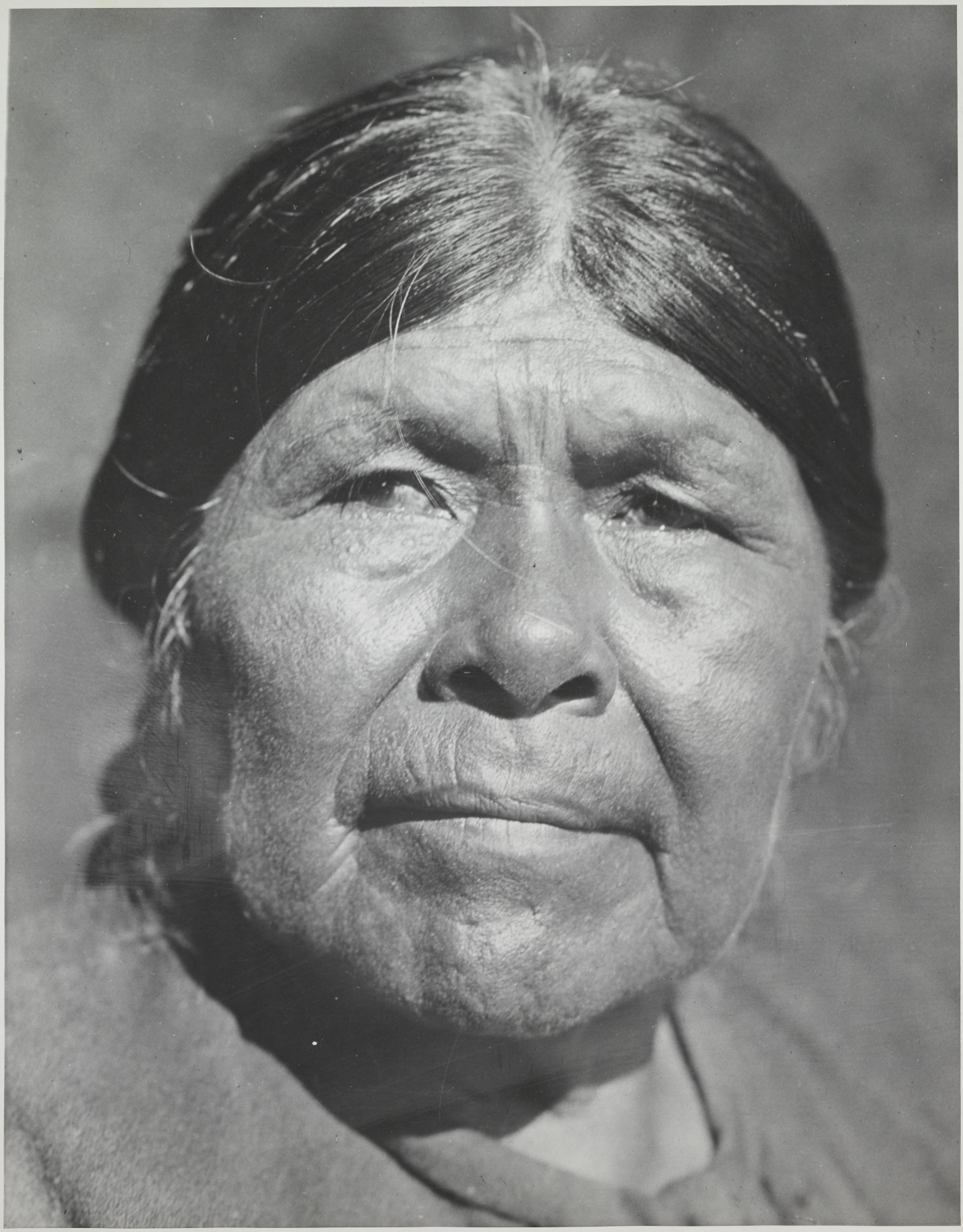
Southwest Museum (C. C. Pierce Collection)
"Mojave Belle (No 3405)



Southwest Museum. (Curtis copyright)
"A Chukchansi Woman (No 4055-A)

Following written on a copy:
L.K. 9/6/55
A Chukchansi Woman (profile)

Yokuts

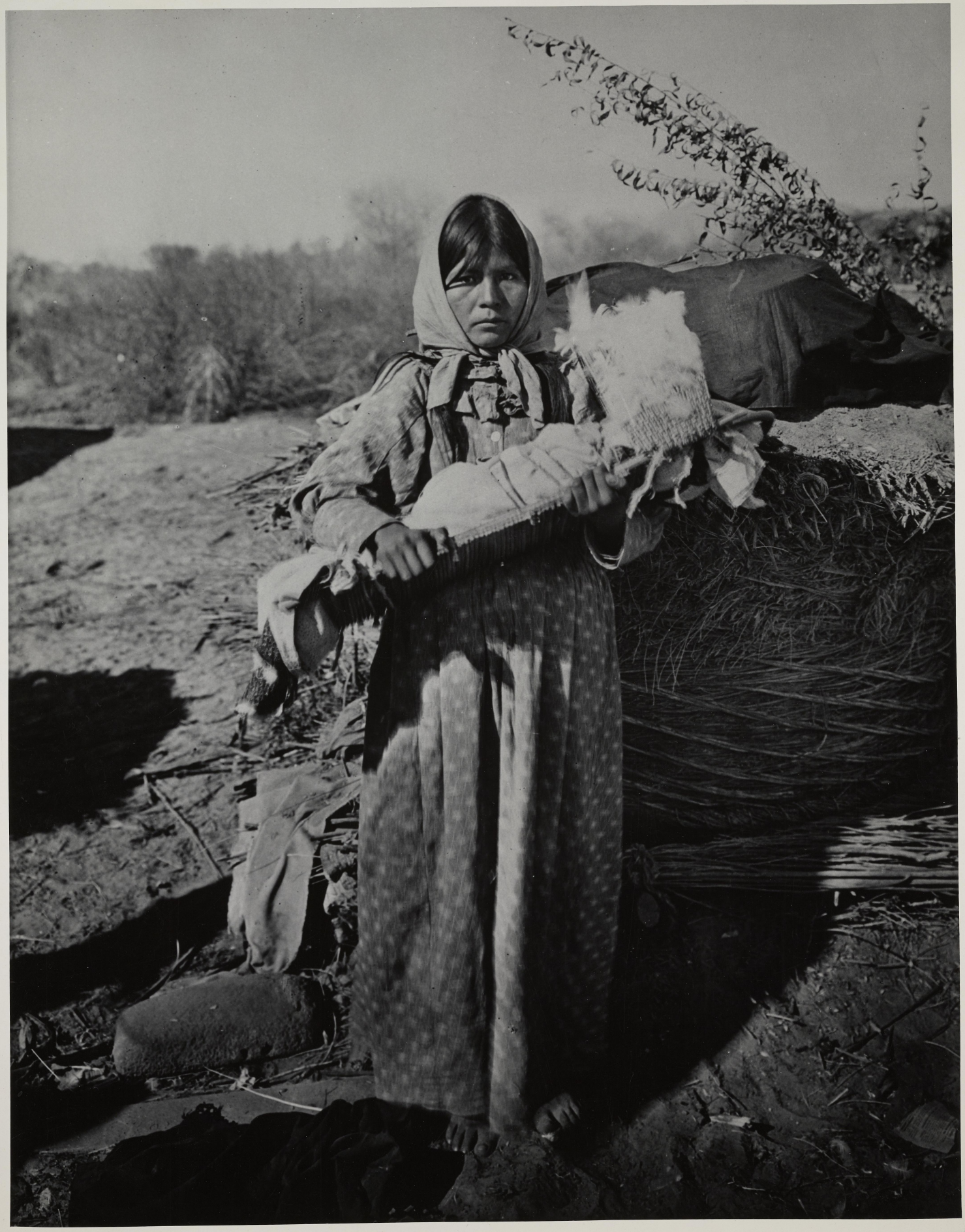


Southwest Museum (Curtis Copyright)
"A Chukchansi Woman (No 4010-A)

The Following is written on the back of a copy:

9/6/55 L.K.
A Chuckchansi woman
Central California Yokuts

Yokuts

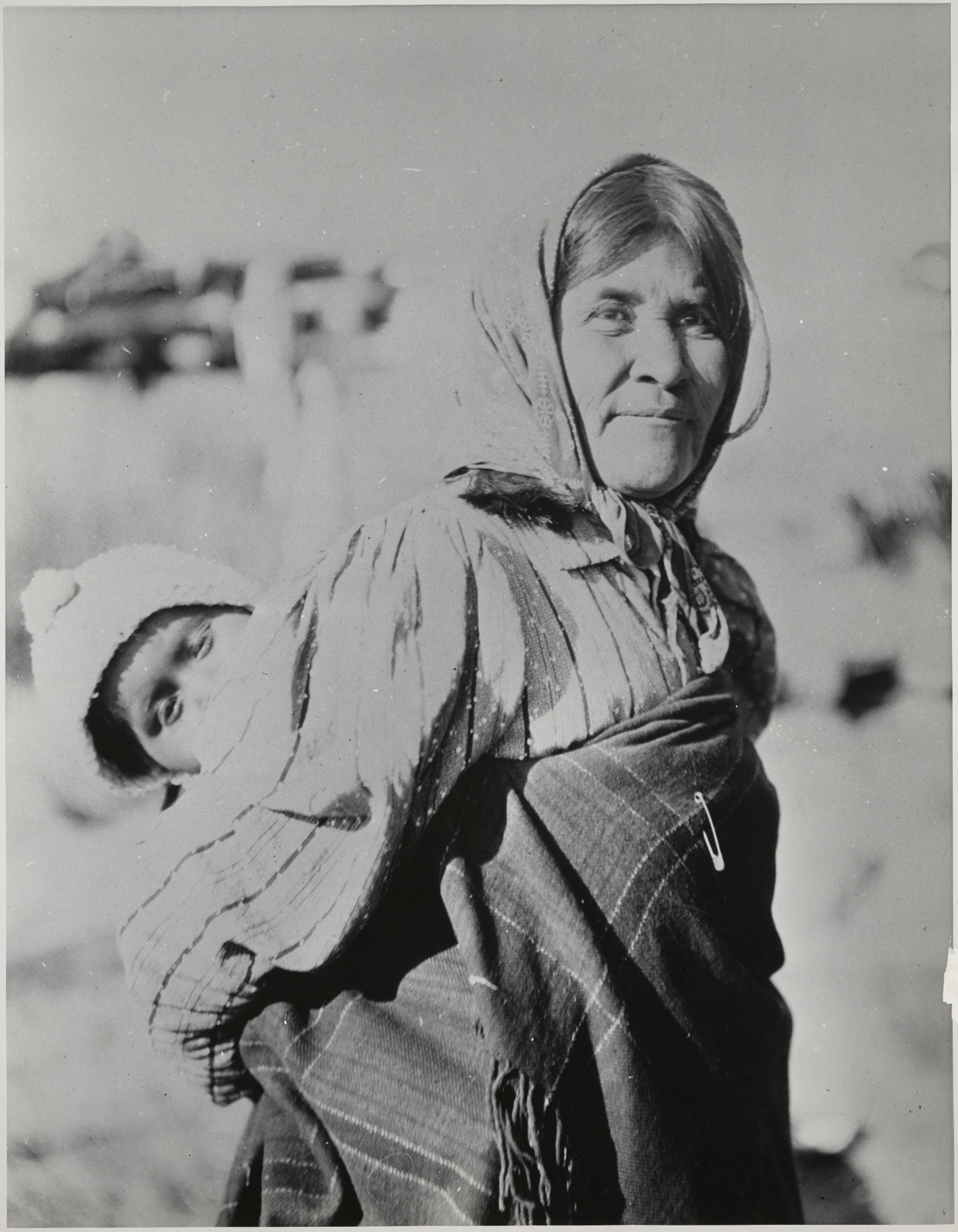


Southwest Museum 700-G-33 (-31)
"Chemehueve woman with baby on cradle, storage basket"
(The C.C. Pierce Collection, 3420 Historical photographs
1572 W. Pico St, Los Angeles)

The following is written on the back of a copy:

"Chemehueve" Woman with baby on cradle board.
Standing next to storage basket.

S.E. California Chemehueve



Southwest Museum (G.W. James Coll)
"The Chemehuevi Story Teller & her Baby" (No 3489)

The following is written on the back of a copy:

9/6/55 L.K. The Chemehuevi Storyteller and her Baby

3477.

G Wharton James Collection, 3477
Southwest Museum
"A Chemehuevi Girl"

SE California

Chemehuevi

Southwest Museum
"Mohave Newlyweds"

VL 1

VC 2

VL 3

3

VL-4

V2-5 (4)

VL 6

V.L 7

VL 8

VL9

VL 10

VC 11

VL 12

VL 13

VC 14

VL-15

VL-16

VC 17

VL 18

VL 19

VL 20

H 1

H2

A3

H 4

H 5

H6

H7

H-8

H 9

H10
GPF 48985

H-11

H 12

H 13

H 14

H 15

H 16

H 17

PAR-T-PAK
BEVERAGES
SHELL
Reddy Fruit

H 18

H19

F1

P2

F3

F 4

P 5

F6

E 7

F8

F 9

F10

R. 11

F 12

F 13

F14

F15

F-16

F 17

F18

F 19

F-20

F 21

P22

B-1

B2

B-4

B-5

B-6

B 7

B-8

B9

B10

B-11

B-12

B 13

B-14

A1

A2

A 3

A4

A 5

A 6

47

A 8

MC 1

MLZ

ML 3

ML 4

ML 5

ML 6

ML 7

ML-8

ML 9

ML10

ML 11

11

M12

MCB

ML 14

ML 15

ML16

ML 13

ML 18.

ML 19

ML 20

AB-1

AB-2

AB-4

AB-5

AB-6

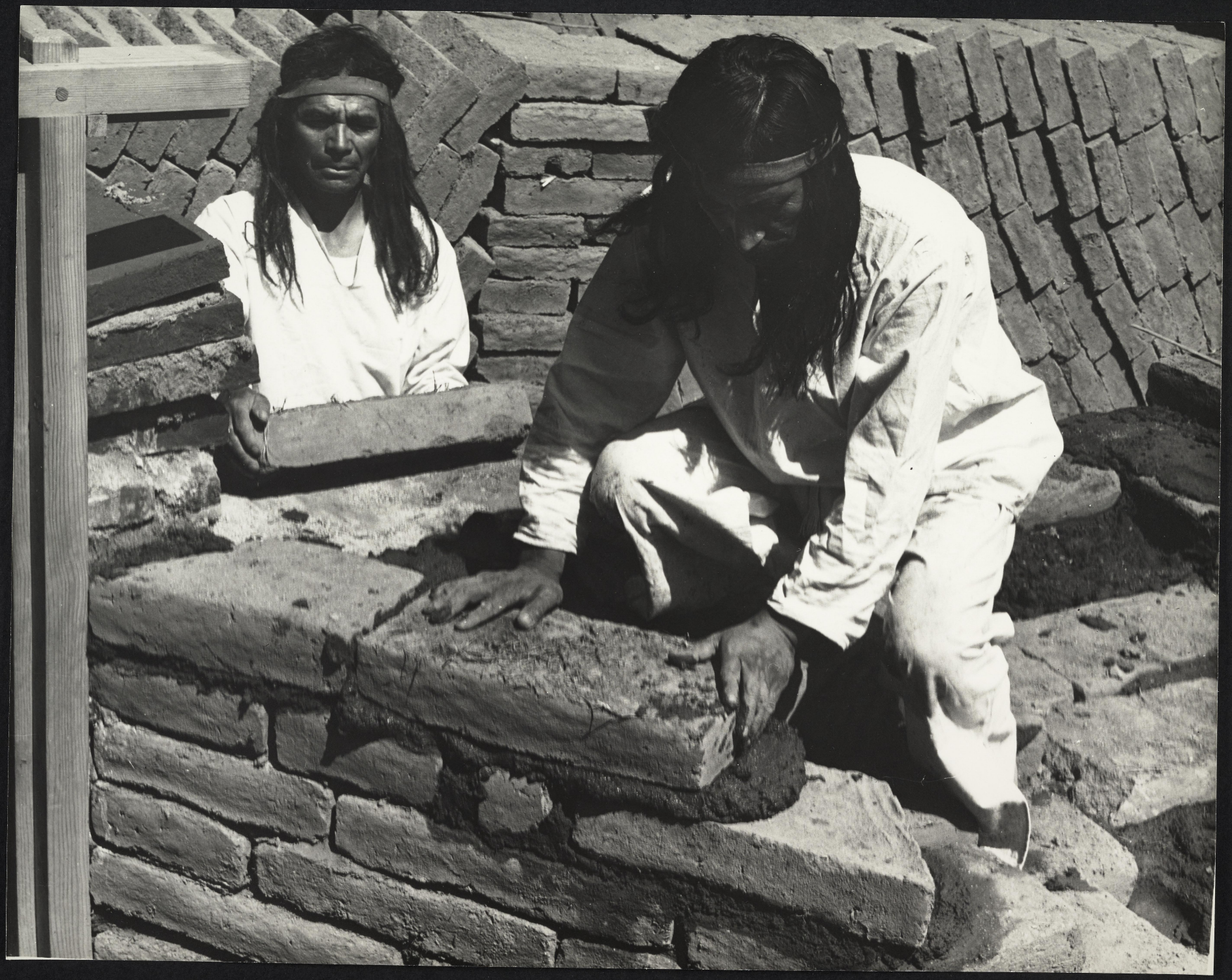
AB-7

AB-8

AB-9

AB10

AB-12



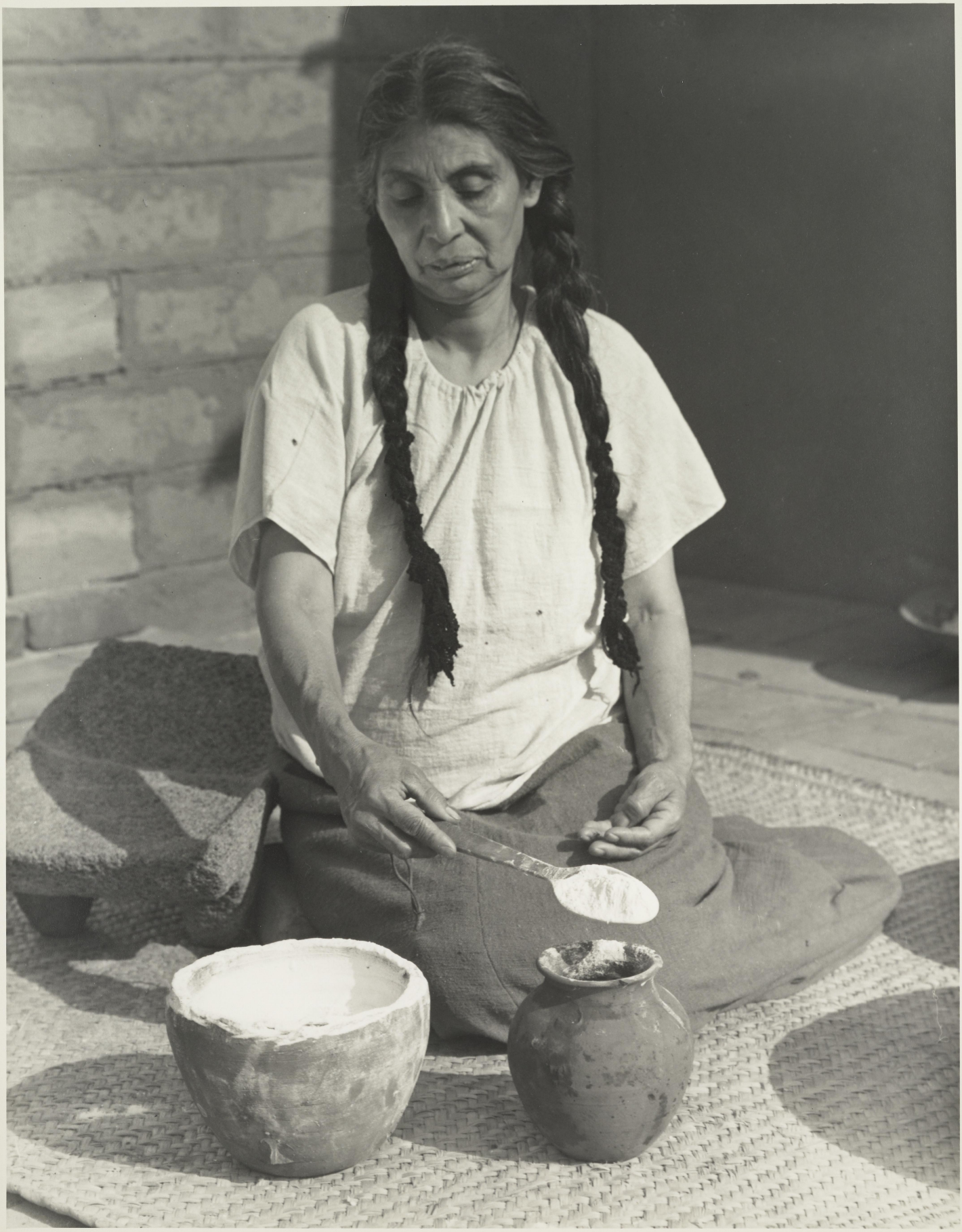
AB-13

AB-14

AB-15

2

3



6

7

8

11

15

R-1

LOMARIOS
SIERRAS
LINDERO
SITIO DE JOSE
SITIO DE JESUS SOLIS
LINDERO
LINDERO
casa
LINDERO
camina vela casa

R-2

R-3

R-4

R.-5

R 6

R 7

RC8

R 9

R-10

R11

R12

RC-13

R 14

RL15

R-16

R-17

R-18

R-19

R-20

THE REATA MAKER

1. The vaqueros of the Spanish ranchos used strong, leather ropes to handle the cattle. These ropes were called reatas. The man who made the reatas was called the reatero.

The reatero needed two cowhides to make a reata. First, he soaked the dried hides in water to soften them. Then he stretched them on the ground. He cut small slits around the edges. He pounded wooden pegs through the slits to hold the hides in place.

1

THE REATA MAKER

2. When the hides were nearly dry, the reatero cut off the uneven edges. Then he cut each hide into a single long strip about one inch wide. He began cutting at the outer edge of the hide. He cut around and around the circular hide until he reached the center.

2

THE REATA MAKER

3. These long strips of hide were called rawhide. The reatero coiled each strip and tied it in a bundle. He put the bundles of rawhide into a water hole. He let them soak all night to make the rawhide soft.

3

THE REATA MAKER

4. The next day the reatero stretched the wet strips of rawhide between two posts. As the rawhide dried, the edges curled in. This left the hair side rounded. The reatero scraped off the hair with a sharp knife.

4

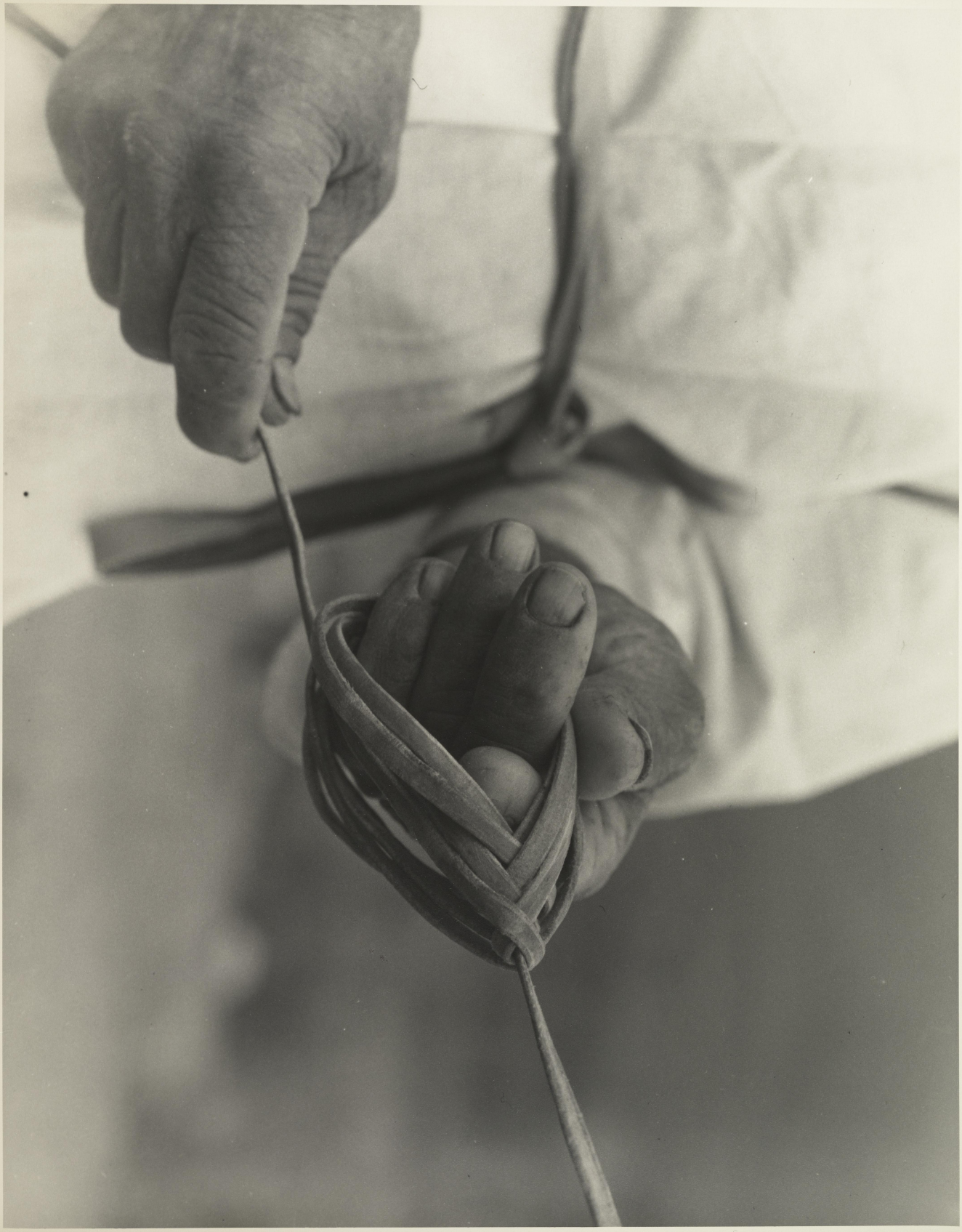
THE REATA MAKER

5. The reata maker soaked the rawhide again to soften it. Then he split the long strips in half by pulling them against a sharp blade fastened in a notched log. Now he had four narrow rawhide thongs. He trimmed each thong to make it even in width and in thickness. He used the notches that he had cut in the log to guide the rawhide thongs.

5

THE REATA MAKER

6. The reatero wound the four narrow rawhide thongs into special bobbin-like bundles. He wound them so that the thongs pulled easily from the center of the bobbins. He made a bobbin on each end of a thong by starting near the middle and working to the ends.



6

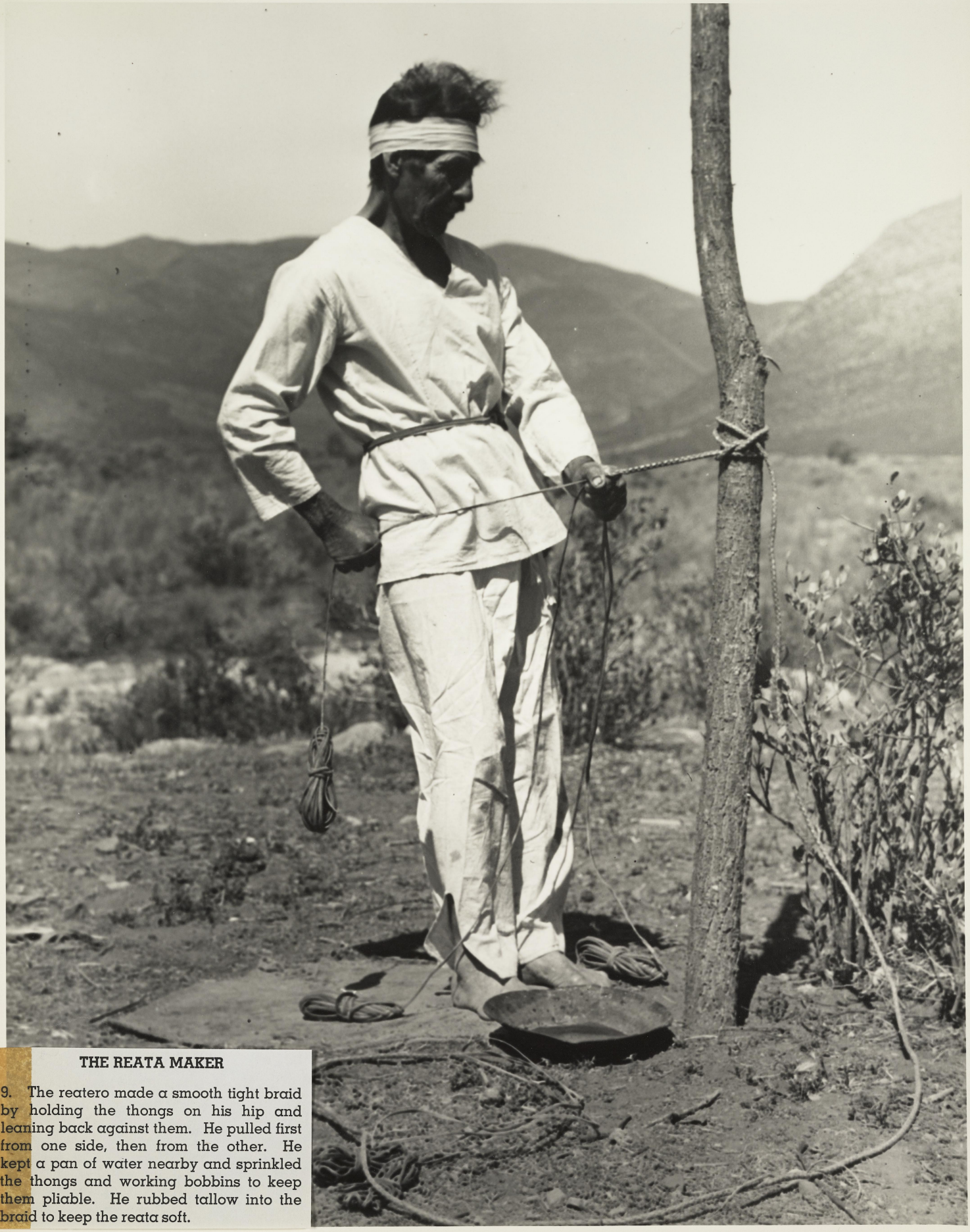
THE REATA MAKER

7. The four rawhide thongs were then ready to be braided into a reata. The reatero tied them to a strong post and started braiding with one set of bobbins. When he had used all of the leather in this set of bobbins, he started in the middle again and braided with the other set of bobbins.

THE REATA MAKER

8. The reatero braided the rawhide thongs together by continually working the outside thongs into the center of the braid. He pulled firmly on each thong to keep the braid from becoming uneven and bumpy.

8



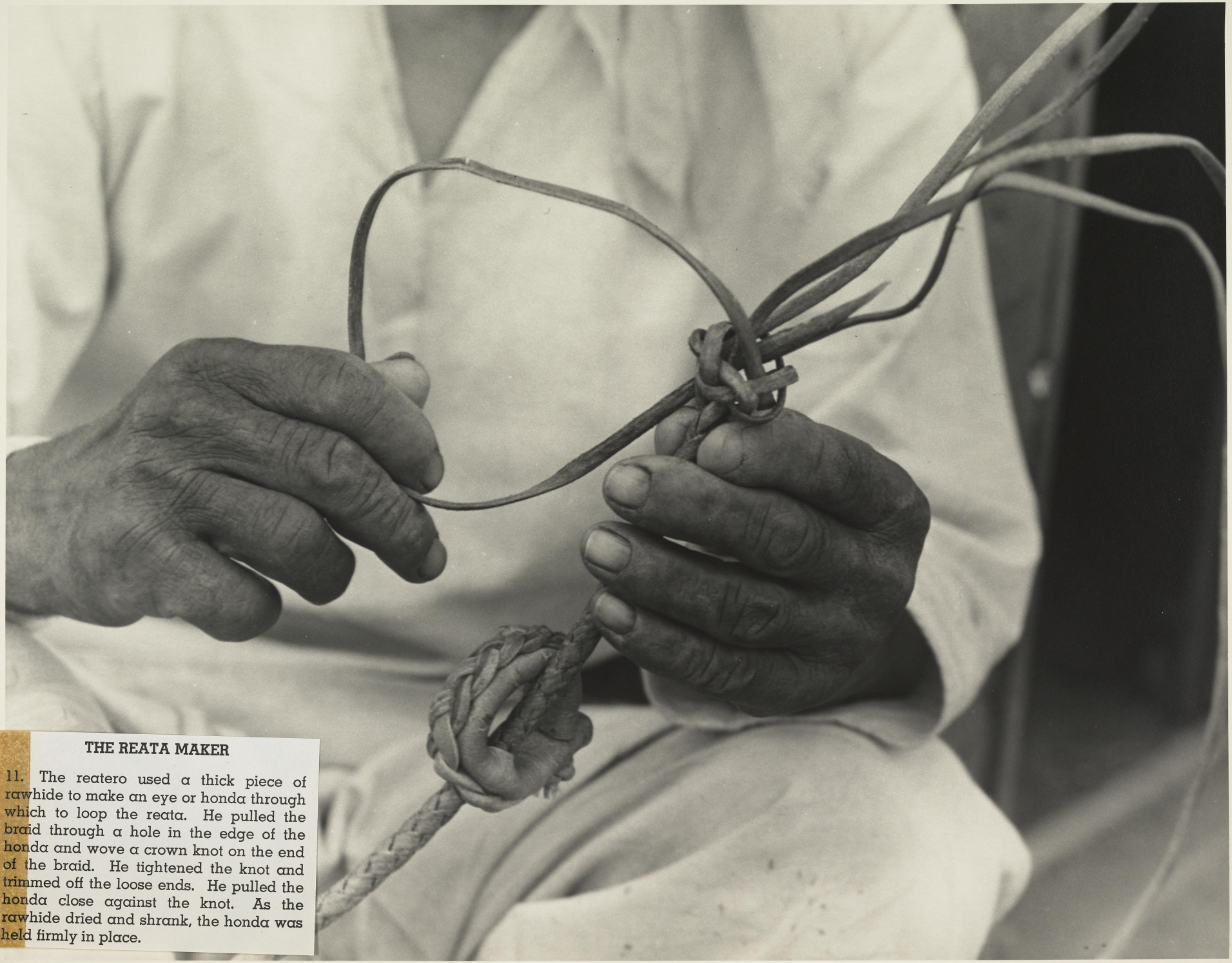
THE REATA MAKER

9. The reatero made a smooth tight braid by holding the thongs on his hip and leaning back against them. He pulled first from one side, then from the other. He kept a pan of water nearby and sprinkled the thongs and working bobbins to keep them pliable. He rubbed tallow into the braid to keep the reata soft.

THE REATA MAKER

10. The reatero stretched and smoothed each thong by pulling it through a slotted wooden tool.

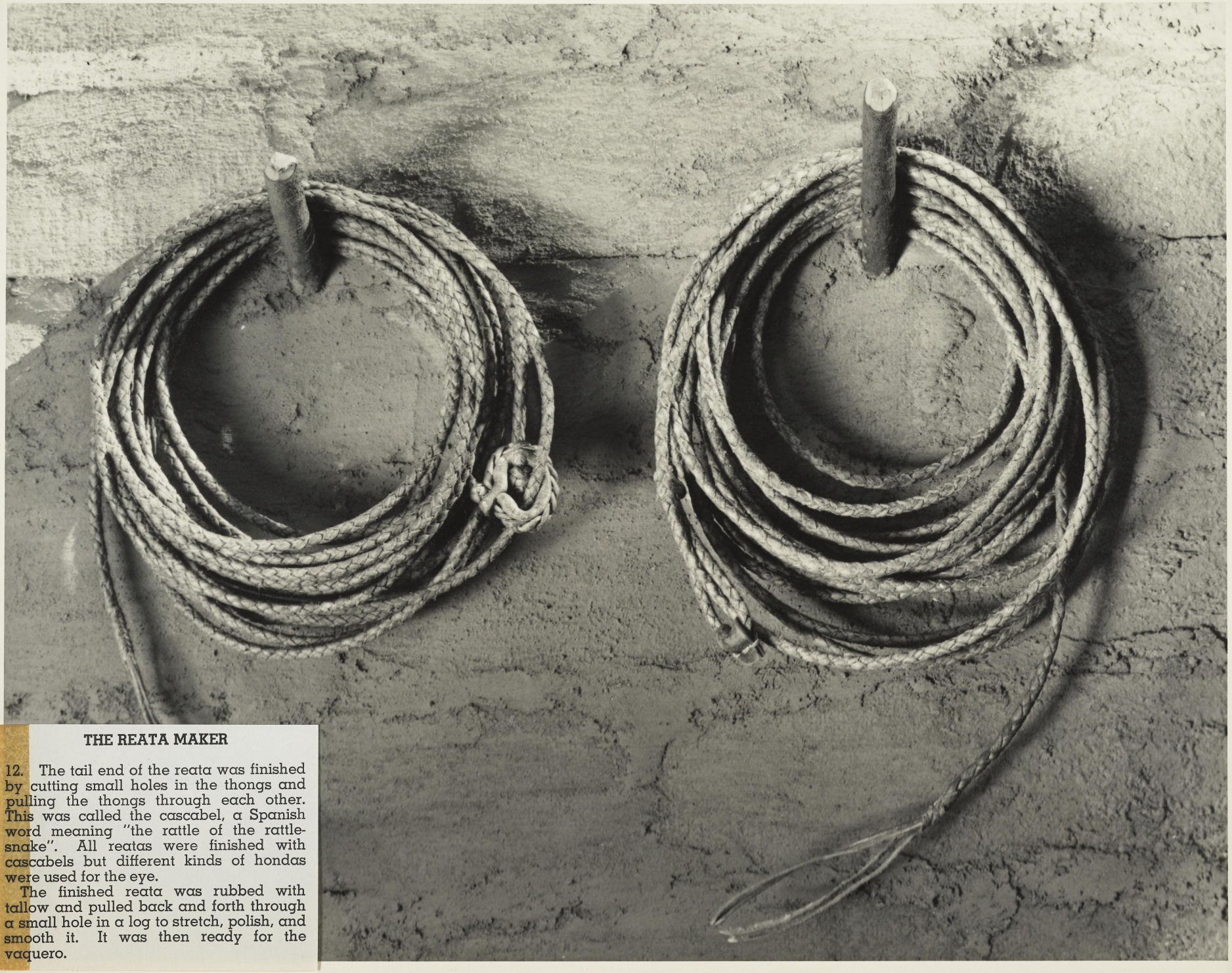
The reatero worked about two weeks to make the raw cowhides into a finished reata. He made most of the reatas about forty-five feet long and three eights of an inch thick.



THE REATA MAKER

11. The reatero used a thick piece of rawhide to make an eye or honda through which to loop the reata. He pulled the braid through a hole in the edge of the honda and wove a crown knot on the end of the braid. He tightened the knot and trimmed off the loose ends. He pulled the honda close against the knot. As the rawhide dried and shrank, the honda was held firmly in place.

11



THE REATA MAKER

12. The tail end of the reata was finished by cutting small holes in the thongs and pulling the thongs through each other. This was called the cascabel, a Spanish word meaning "the rattle of the rattlesnake". All reatas were finished with cascabels but different kinds of hondas were used for the eye.

The finished reata was rubbed with tallow and pulled back and forth through a small hole in a log to stretch, polish, and smooth it. It was then ready for the vaquero.

2

3

5

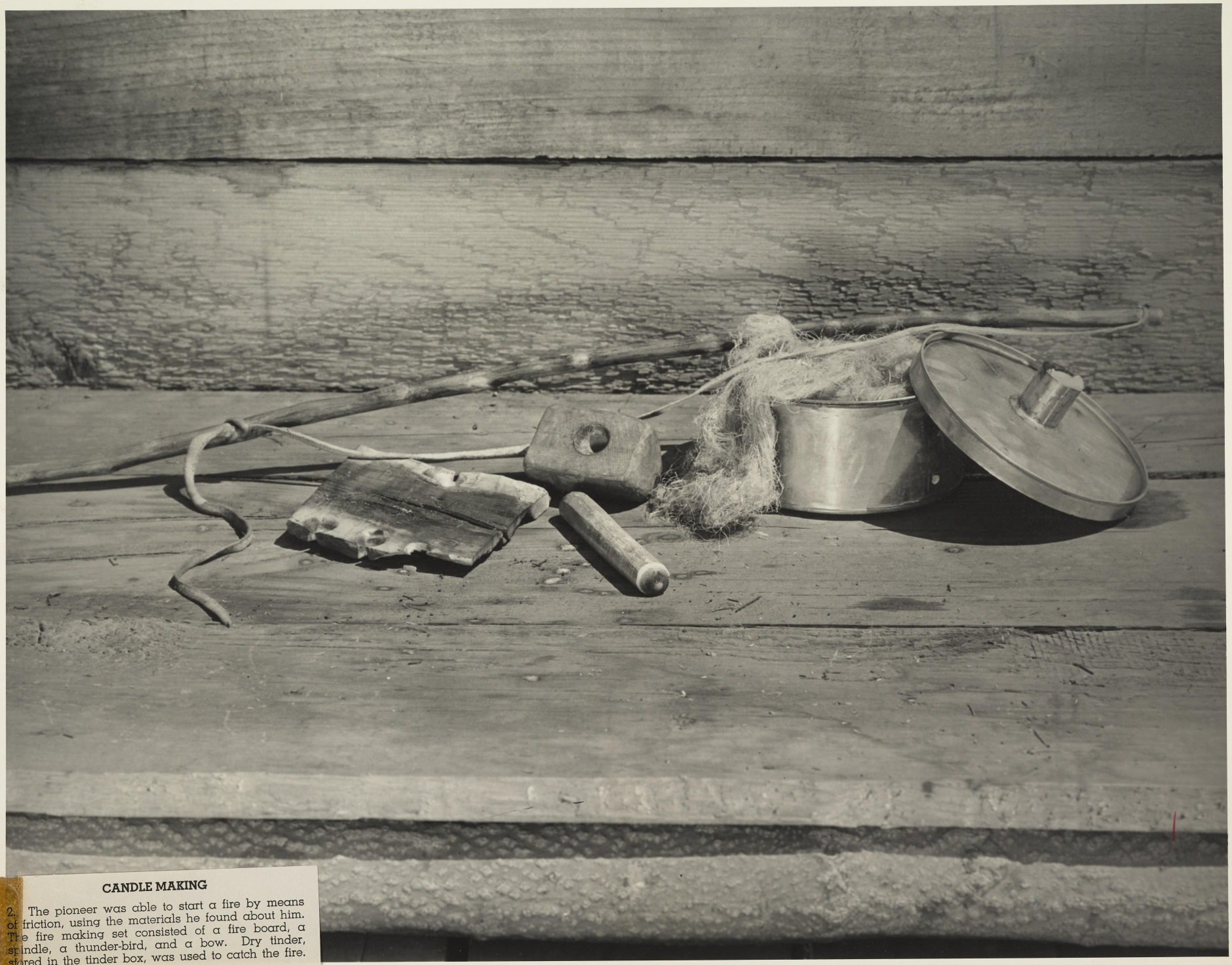
6

7

CANDLE MAKING

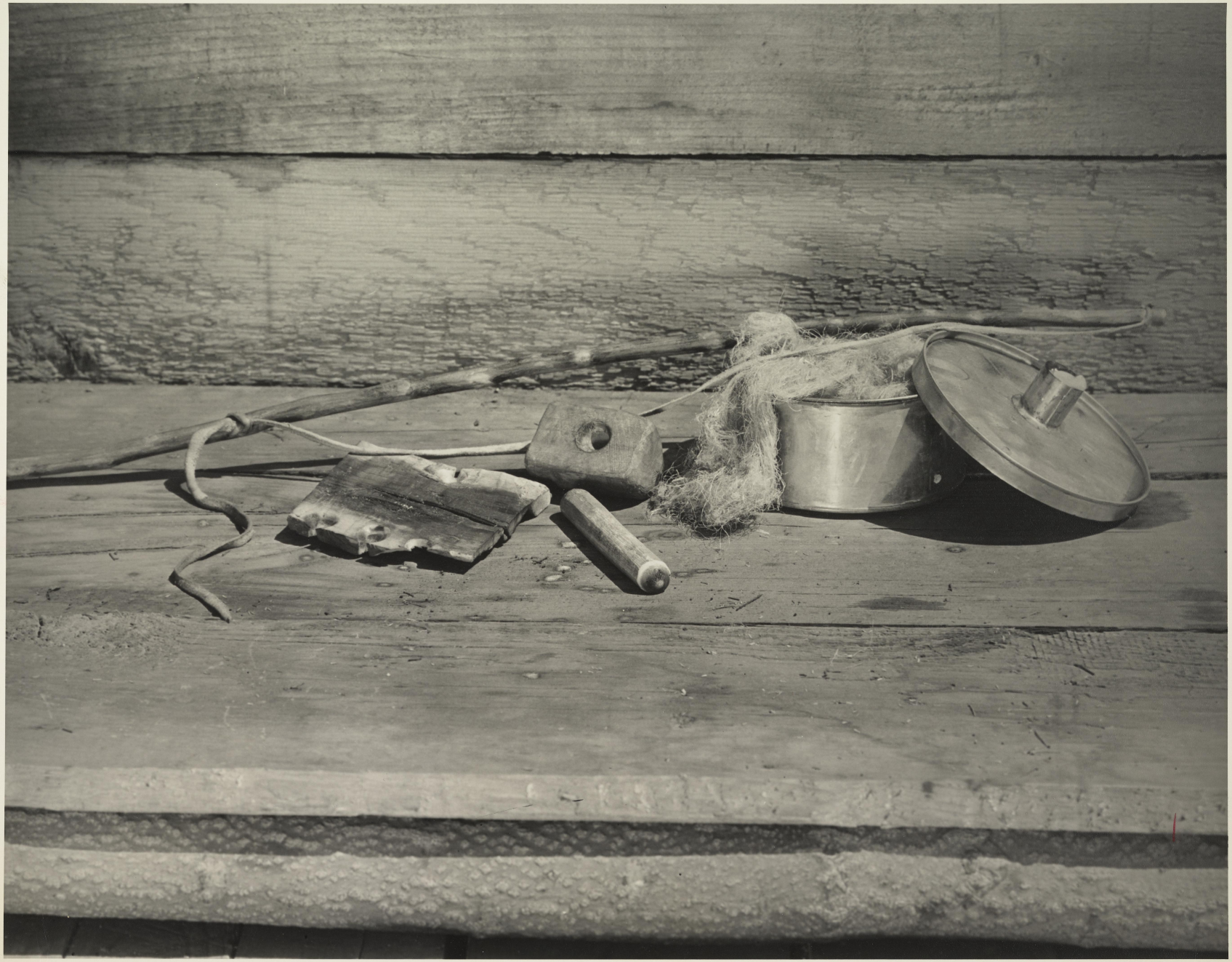
1. Candles were used to light the pioneer's home on winter evenings. They were sometimes molded in metal forms but dipping was a more popular method of making them.

Candle dipping was a household activity in which the entire pioneer family took part. Candles were usually dipped in the fall and a winter's supply was made at this time.



CANDLE MAKING

2. The pioneer was able to start a fire by means of friction, using the materials he found about him. The fire making set consisted of a fire board, a spindle, a thunder-bird, and a bow. Dry tinder, stored in the tinder box, was used to catch the fire.



2

CANDLE MAKING

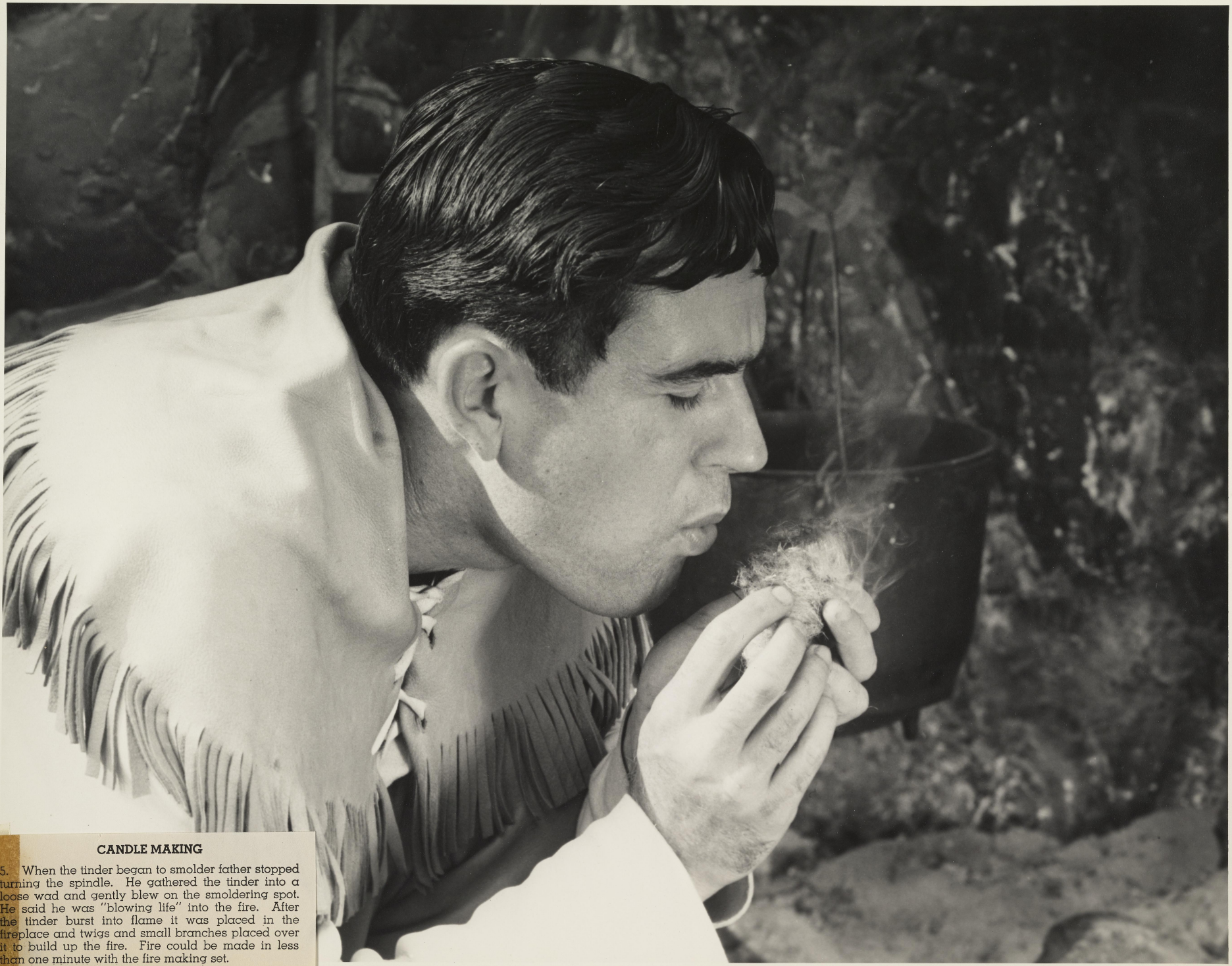
3. Father started the fire with his firebow. He placed a small wad of tinder under the fire board. Then he set the spindle in the bow string and placed one end in the fire hole and the other end in the socket of the thunder-bird which he held in his hand. He braced his left hand against his leg as he pushed and pulled the bow with his right hand.

CM

CANDLE MAKING

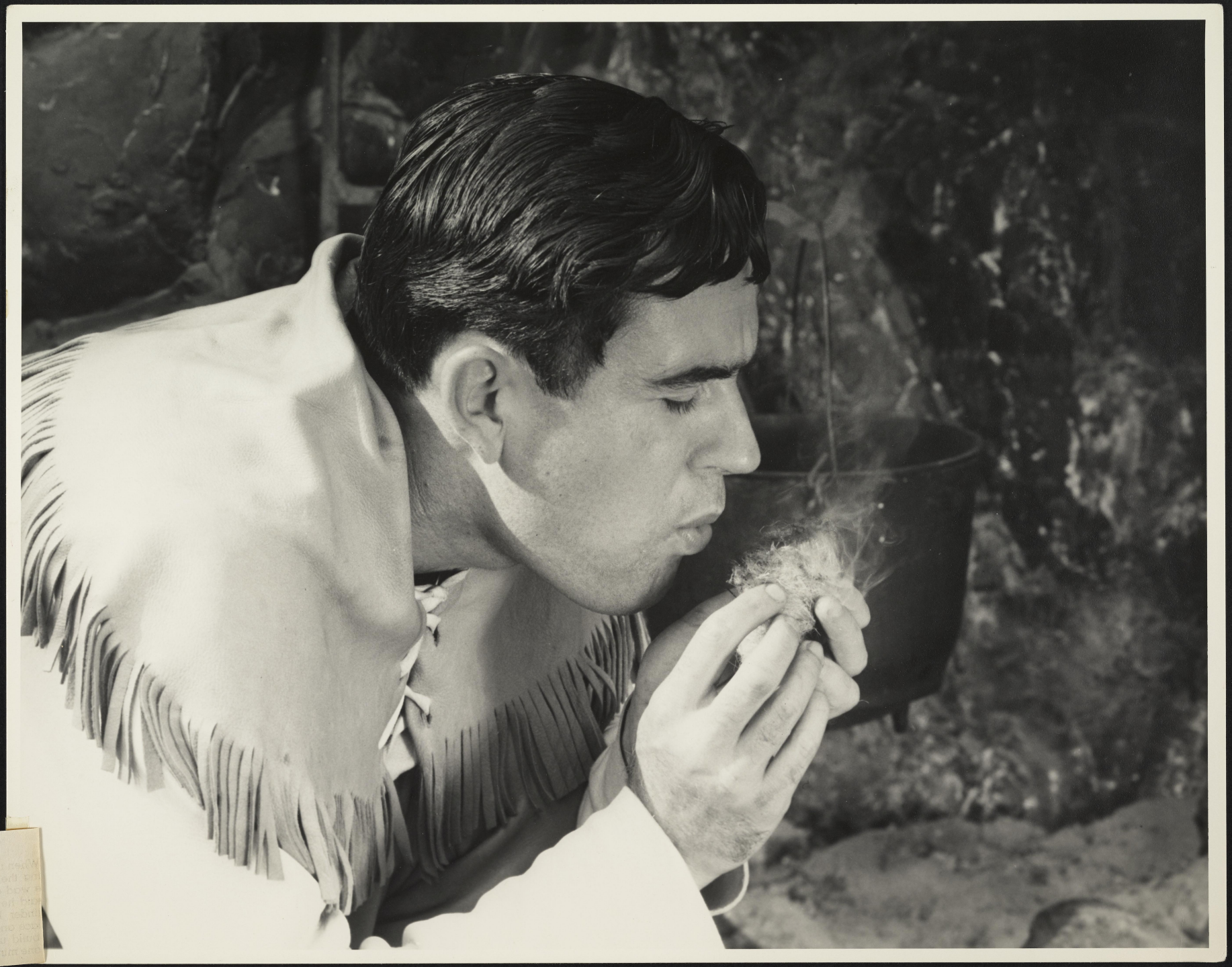
4. The bow string turned the spindle which father held against the fire board by pressing down on the thunder-bird. The friction of the turning spindle created heat. Hot embers dropped from the end of the spindle and firehole through the V shaped fire-notch cut in the side of the fire hole onto the tinder.

CM



CANDLE MAKING

5. When the tinder began to smolder father stopped turning the spindle. He gathered the tinder into a loose wad and gently blew on the smoldering spot. He said he was "blowing life" into the fire. After the tinder burst into flame it was placed in the fireplace and twigs and small branches placed over it to build up the fire. Fire could be made in less than one minute with the fire making set.



5

CM

CANDLE MAKING

6. After starting the fire, father measured the cotton wicking around the wicking board. The pioneer family had carried candle wicking with them into the wilderness. When this supply was gone, father made a trip back to the nearest settlement where he traded deer hides for more wicking and other necessities such as powder, lead and flint.

6

GM

CANDLE MAKING

7. The cotton wicking was measured on the "wicking board". After several loops had been wound on the board a knife was slipped under one end and the wicks were cut off. When cotton wicking was not available the pioneer made his own wicking from the fibers of the hemp plant, crushed nettle stems, or the silk down of the milkweed seed pod. These fibers were spun into wicking on the spinning wheel.

7

CANDLE MAKING

8. Mother and Elaine twisted the wicks tightly in one direction, then looped them over a candle rod and twisted the two ends together in the opposite direction. Five wicks were placed on each candle rod and spaced so that the candles would not touch one another.

8

CANDLE MAKING

9. Two long poles were placed across the backs of two chairs and on these the candle rods were spaced far enough apart to prevent the rows of candles from touching each other. The length of the candle rods was determined by the size of the kettle in which the wicks were dipped. A twenty-four inch iron kettle was commonly used. The candle rods were cut to fit crosswise of the kettle.

9

CM

CANDLE MAKING

10. The pioneer saved all the tallow from the bodies of deer and bear killed for food, to use in making candles. Father cut the tallow into small pieces and dropped them into the large iron kettle.

CANDLE MAKING

11. Mother poured boiling water into the large kettle to melt the tallow. Several small kettles of water were needed to make the dipping kettle nearly full. The melted tallow floated on the surface of the hot water and after the unmelted chunks had been skimmed off, everything was in readiness to begin dipping.

CANDIE MAKING

11

CM

CANDLE MAKING

12. Elaine lifted the candle rods from the poles and handed them one at a time to her mother who carefully dipped the wicks into the melted tallow. As each rod of wicks was dipped, Elaine returned it to the poles to cool. This continued until all the wicks had been dipped. Then, beginning with the first rod, the process was repeated over and over again.

12

CANDLE MAKING

13. The melted tallow floating on the surface of the water clung to the wicks as they were dipped in and out adding a thin layer of tallow each time. After the wicks were coated with the first few layers of tallow mother straightened them by sliding her fingers down the wicks. She called this process "stripping".

CANDLE MAKING

14. Candle dipping was greasy and tiring work. Mother and Elaine changed places often as the candles were dipped over and over again. Elaine liked to dip the candles and watch them grow larger in size.

CANDLE MAKING

15. As the tallow was used more melted tallow was added to the kettle. When the water became cool, a kettle full was dipped out and replaced with boiling water. Twenty to thirty dippings were necessary to build the candles to the desired size. They grew larger at the bottom as the tallow flowed down the candle and slowly hardened.

15

CANDLE MAKING

16. The candles were cooled slowly to prevent their cracking. As the dipping continued, candles of various sizes were seen hanging on the poles. Dipping five candles at one time was a labor saving method and made it possible to dip as many as two hundred candles in a single day.

CANDLE MAKING

17. After the candles had hardened they were slipped from the candle rod and the loops cut off with a knife. Father trimmed the large ends square so that the candles would stand straight. They were then ready to store away for later use.

17

CANDLE MAKING

18. Donald packed the candles in a "candle box" for storage. He laid the candles first one way then the other because of their tapering shape. He had made the box himself from the thin slabs of a log his father had split for him. The hinges and catch were made of leather.

18

CANDLE MAKING

19. At "early candlelight" mother placed a candle in the tinder box holder that sat on the mantle. True companionship was enjoyed around the evening fire when Donald and Elaine sat by their mother and listened to their father read from the Bible by the friendly light of a candle.

19

CM

THE SPINNING WHEEL

1. The westward moving pioneers carried with them the most necessary tools to help establish their new homes in the wilderness. The spinning wheel was needed to spin yarn for clothing and household articles. The FLAX WHEEL was often chosen because of its small size. It could be used to spin WOOL as well as FLAX or other FIBERS.

THE SPINNING WHEEL

2. Everyone shared in the work of the pioneer family. Grandmother taught Elaine how to COMB the wool and prepare it for spinning. She gave Elaine a pair of CARDS and placed a handful of wool on one of them. She showed her how to scrape one card lightly across the other to comb the wool.

THE SPINNING WHEEL

3. The fine wire TEETH of the CARDS were curved like hooks to hold the wool fibers. As the cards were scraped lightly together, the fibers were pulled in straight lines between the teeth. CARDING cleaned as well as straightened the matted wool that had been sheared from the sheep.

THE SPINNING WHEEL

4. When the wool fibers were clean and straight, Grandmother turned the lower card around and loosened some of the wool with the teeth of the other card. She rolled the loosened wool into a long thin CURL. She smoothed the curl by rolling it on the teeth of the lower card with the wooden back of the upper card.

4

5 W

THE SPINNING WHEEL

5. Grandmother made several CURLS from one CARDING of wool. She reversed her cards and continued to loosen the fibers and roll them into smooth curls until she had used all of the combed wool from both cards.

THE SPINNING WHEEL

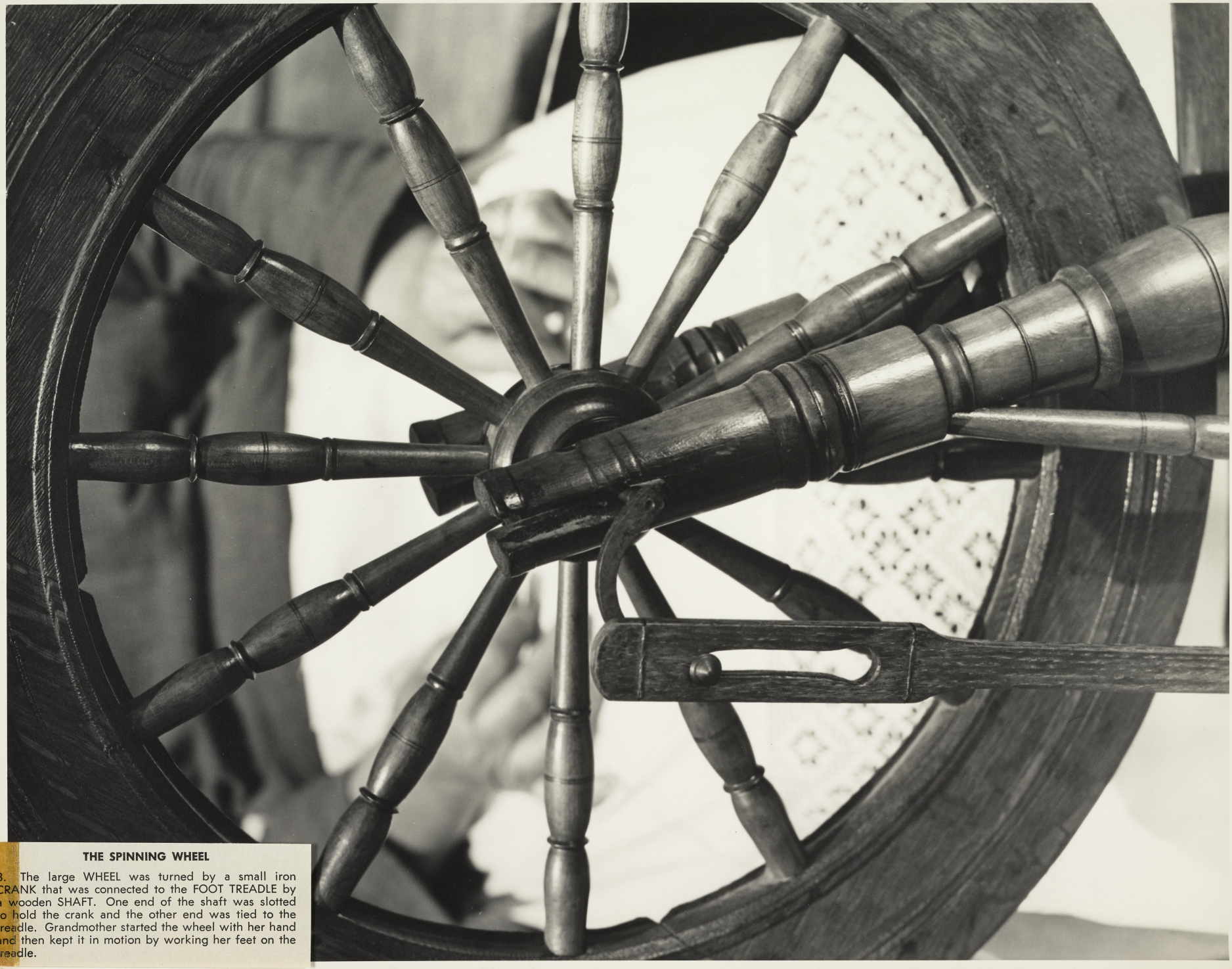
6. Grandmother continued to card the wool which she took from the pronged DISTAFF of the spinning wheel. She needed a good supply of curls because they would be used very fast when she started SPINNING. It required effort and skill to make the smooth curls that were necessary for good spinning.

THE SPINNING WHEEL

7. When Grandmother was ready to start spinning, she THREADED the SPINDLE with the end of yarn left on the BOBBIN from the last spinning. She hung the yarn over the HOOKS of the FLYER and pulled it through the EYE of the spindle with a wire hook. The new wool fibers will be joined to the yarn. When the big wheel turns the spindle, the fibers will be DRAWN through the eye of the spindle, TWISTED into yarn by the whirling wings of the flyer, and WOUND on the turning bobbin.

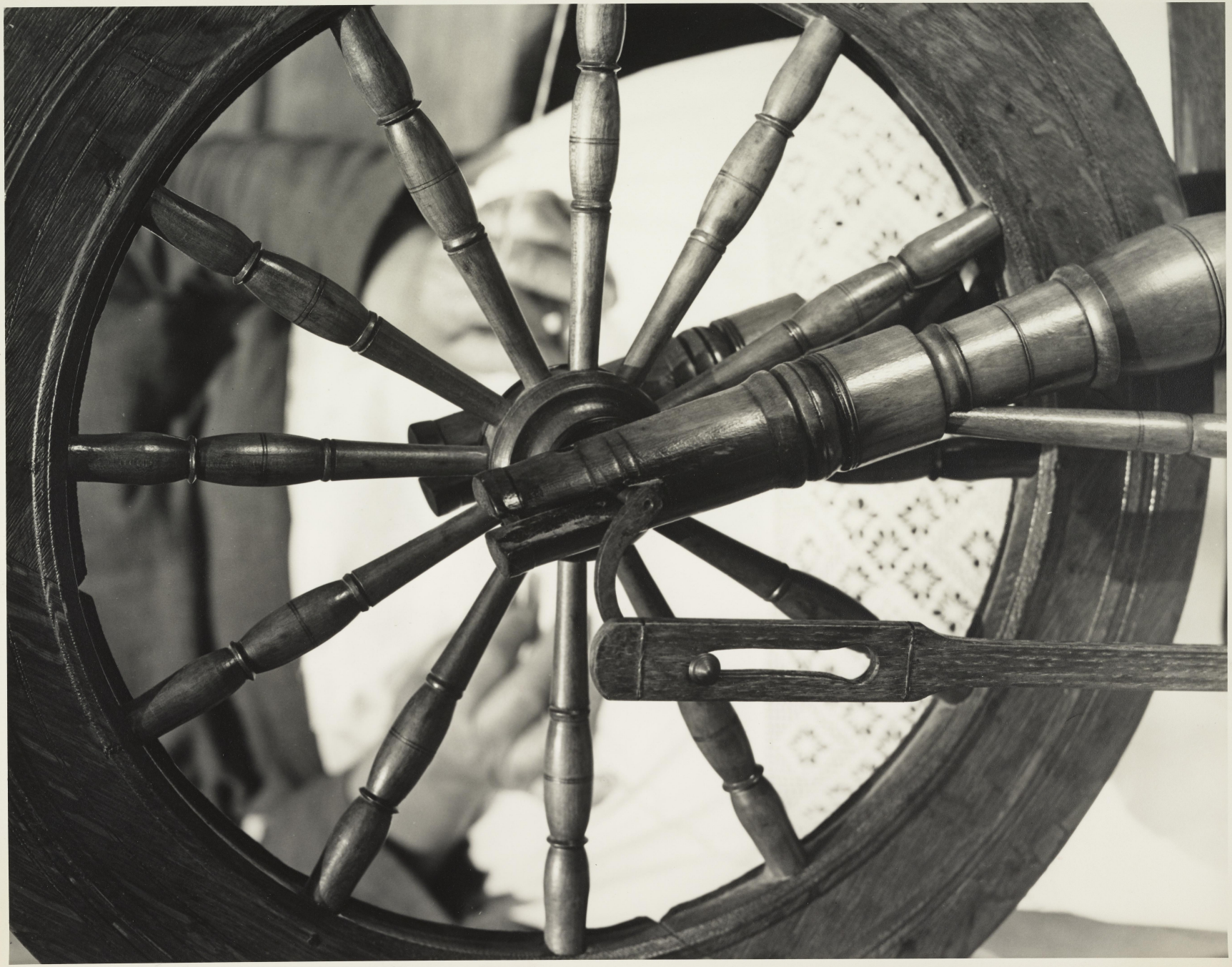
7

5a



THE SPINNING WHEEL

8. The large WHEEL was turned by a small iron CRANK that was connected to the FOOT TREADLE by a wooden SHAFT. One end of the shaft was slotted to hold the crank and the other end was tied to the treadle. Grandmother started the wheel with her hand and then kept it in motion by working her feet on the treadle.



8

SW

THE SPINNING WHEEL

9. Elaine handed the long curls of wool to her grandmother and watched her nimble fingers work them into yarn. Each curl was STRETCHED at least twenty times its length as it was drawn and twisted into yarn.

THE SPINNING WHEEL

10. Joining curls was a difficult step in the spinning process. Grandmother showed Elaine how to leave the end of the yarn untwisted so that the loose fibers would catch and twist into the end fibers of the new curl. A firm SPLICE was necessary for strong yarn.

10

THE SPINNING WHEEL

11. Grandmother held the twisting yarn between the fingers of her left hand to control the amount of TWIST she wanted to go into the curl. Her right hand held the curl and allowed only a short piece of it to twist at one time.

11

THE SPINNING WHEEL

12. When enough twist had entered the piece of curl to STRETCH it into a long, bumpy thread, Grandmother loosened the fingers of her left hand to allow the twist to bind the wool fibers into a firm yarn. She smoothed the yarn by sliding her left hand along the twisting fibers. Learning the proper TENSION and amount of TWIST for good spinning required long practice.

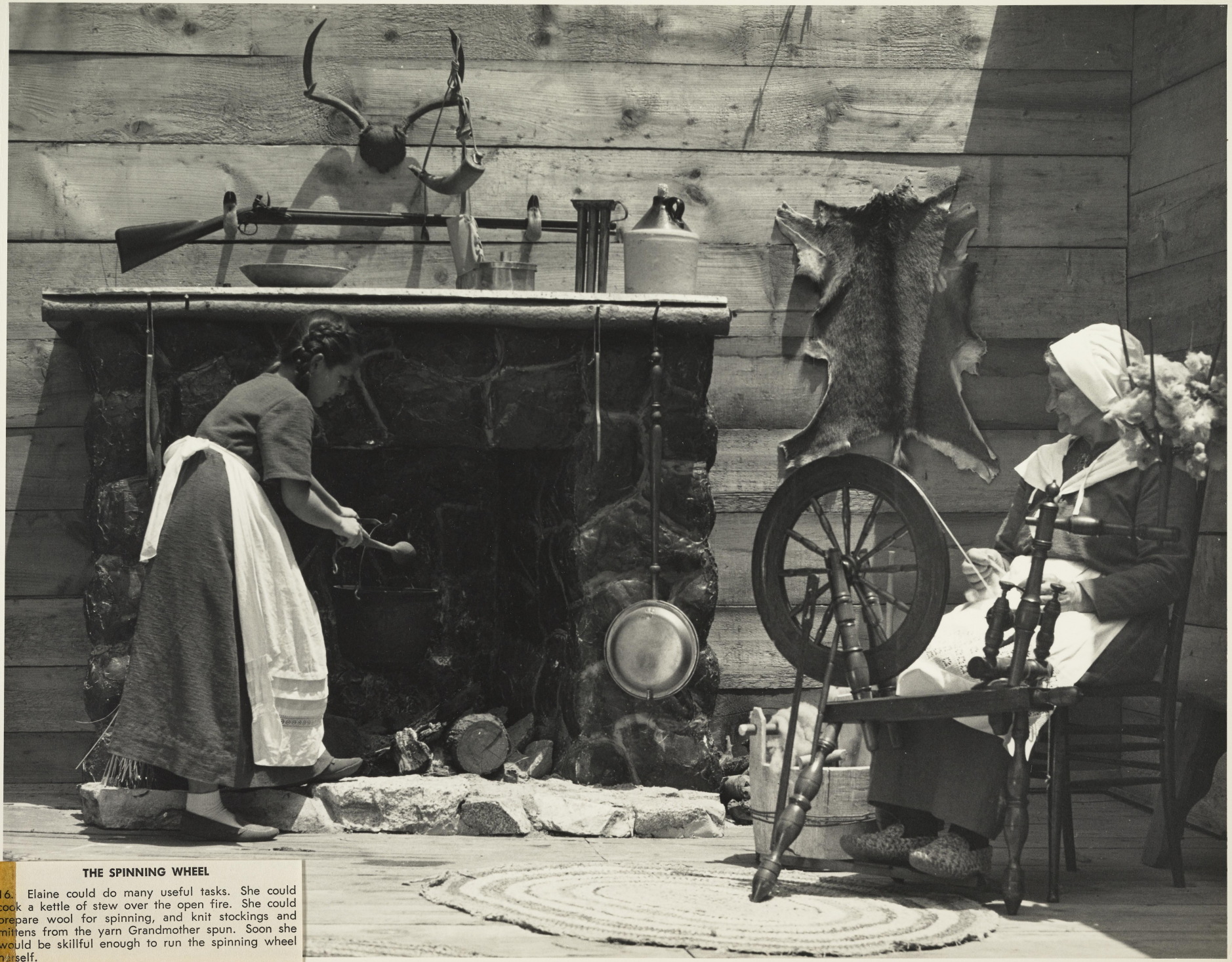
SW

SW

THE SPINNING WHEEL

15. Grandmother also used the spinning wheel to twist two strands of spun yarn together to make a strong TWO-PLY YARN for knitting. Ends from the two balls of yarn were pulled through the eye of the spindle, hung over the flyer hooks, and tied to the bobbin. The spinning wheel was run in reverse to turn the flyer in the opposite direction to that of the original spinning. The opposing twists bound the two strands together as they were wound on the bobbin.

15



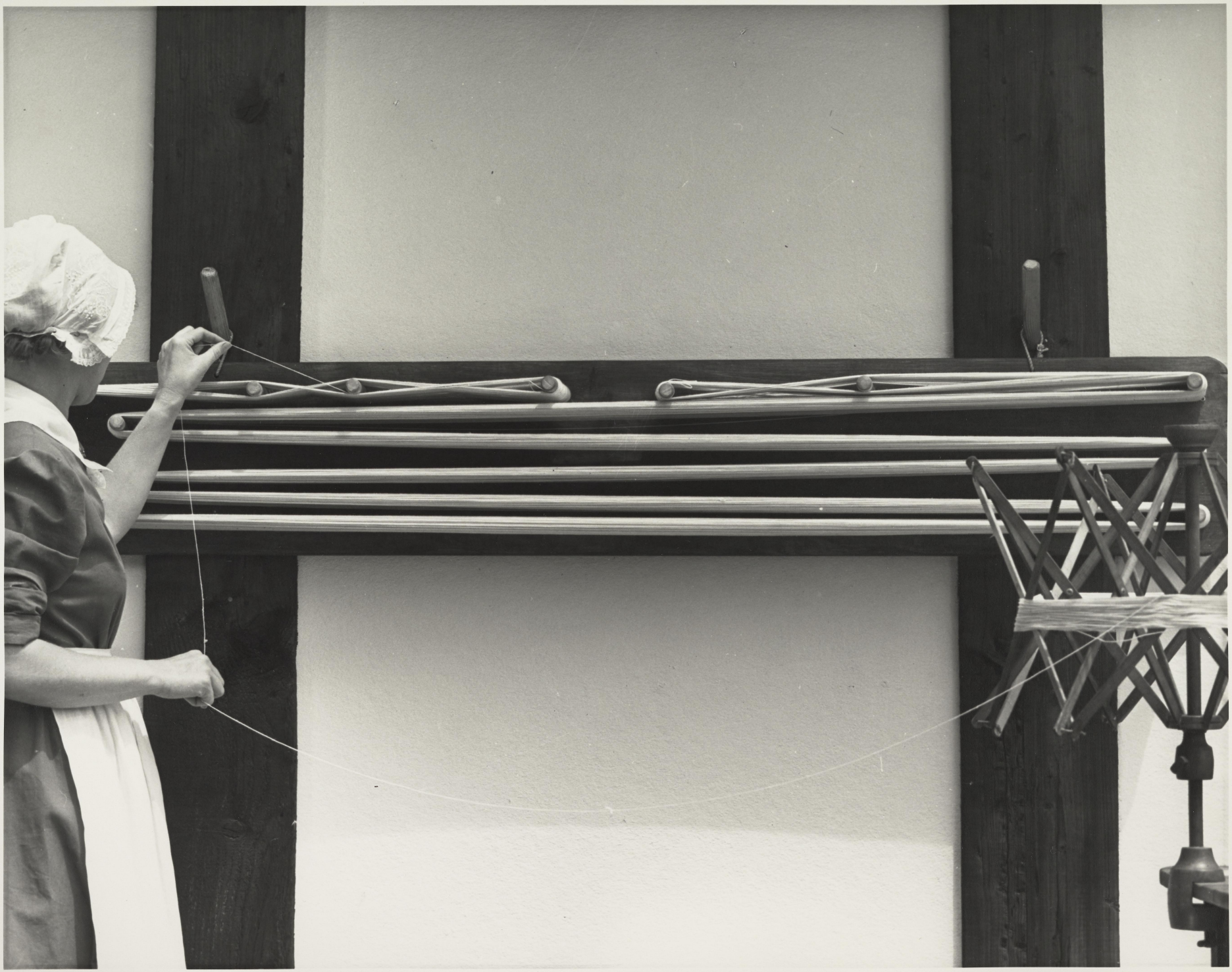
THE SPINNING WHEEL

16. Elaine could do many useful tasks. She could cook a kettle of stew over the open fire. She could prepare wool for spinning, and knit stockings and mittens from the yarn Grandmother spun. Soon she would be skillful enough to run the spinning wheel herself.

h-1

L-2

L-3



h-4

L-5

L-6

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A-8

h-9

h-10

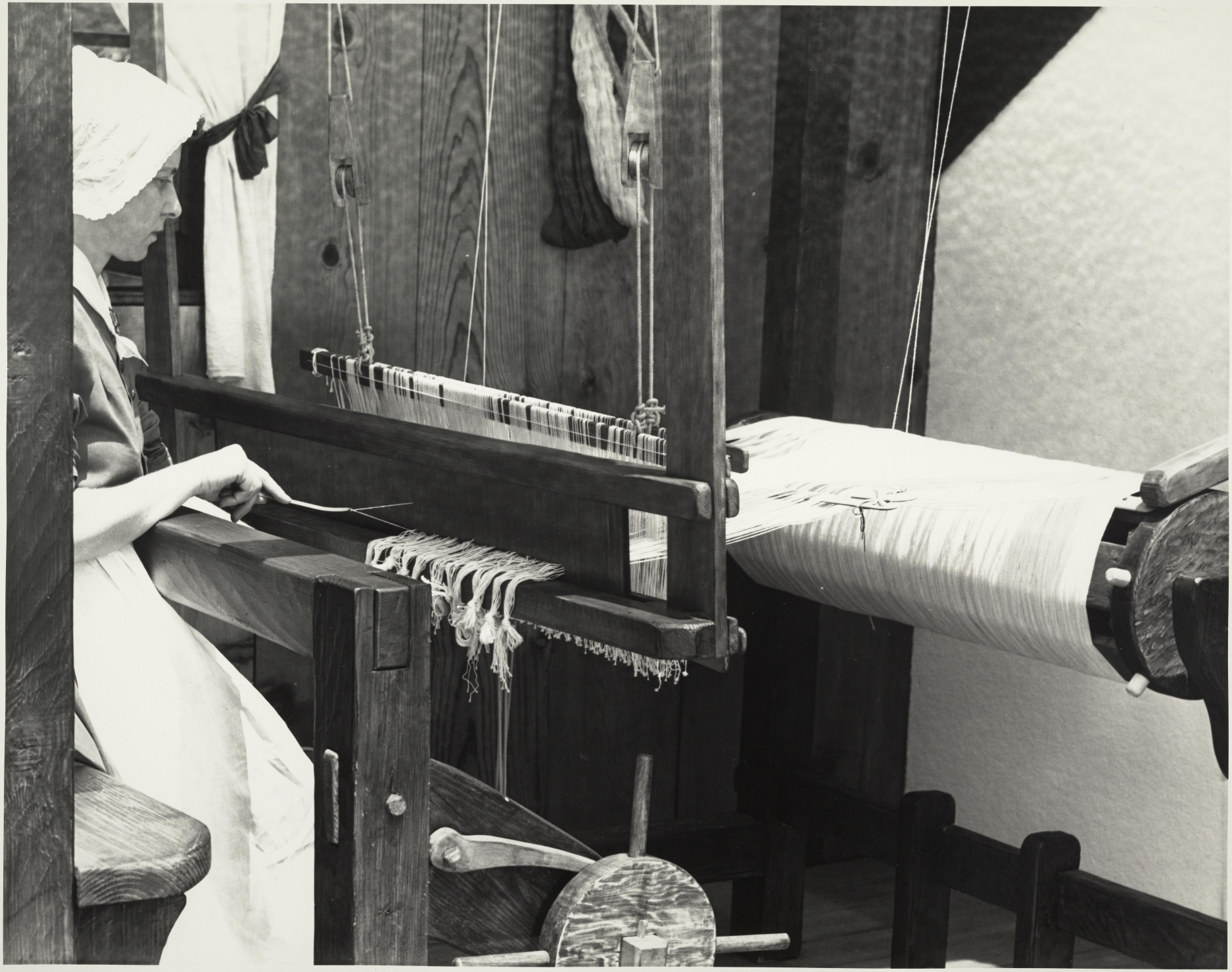
4-11

L-12

h-13

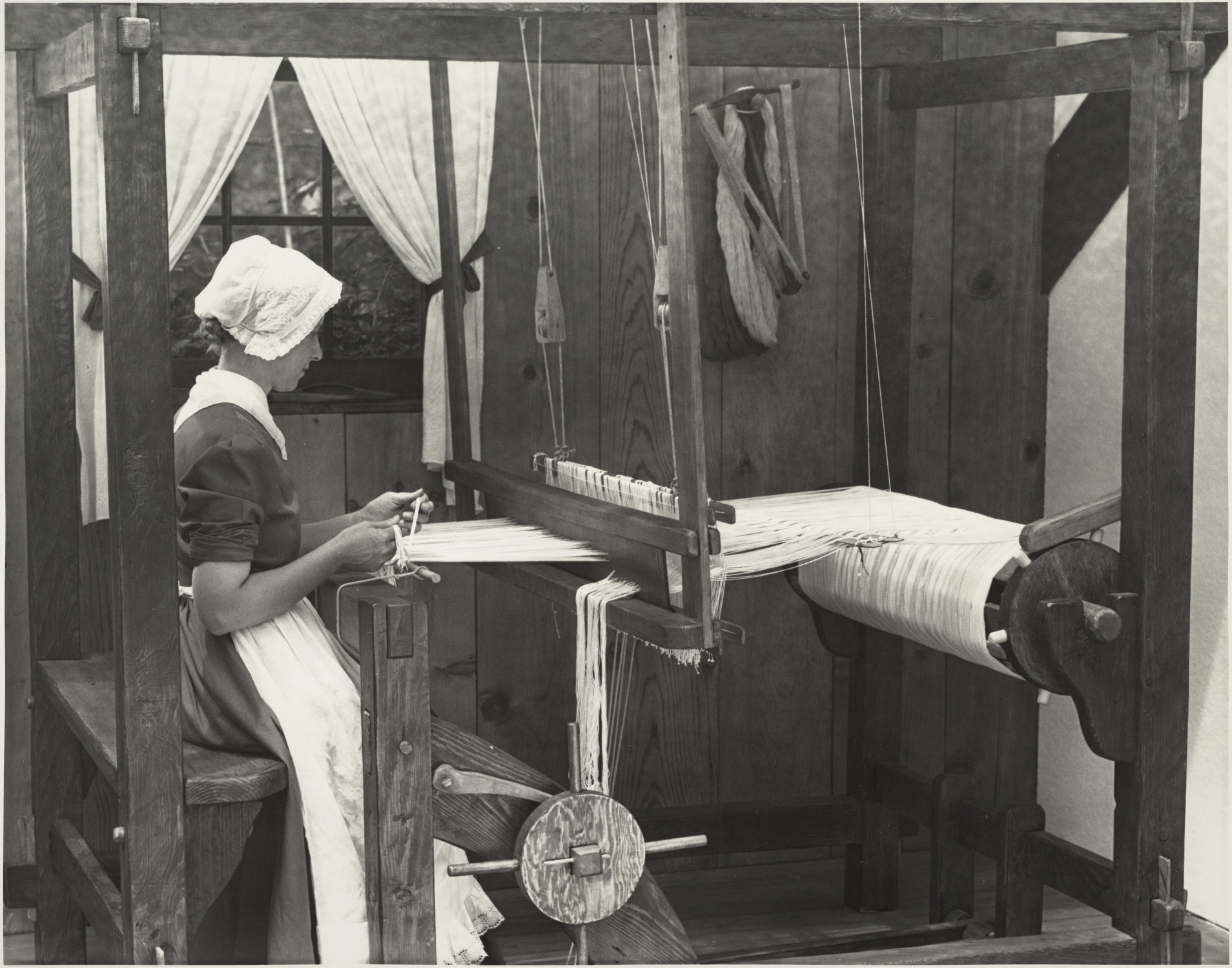
L-14

h-15



L-16

h-17



L-18

L-19

h-20

I-21

L-22

L-23

h-24

FT-2

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PT-4

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FT-7

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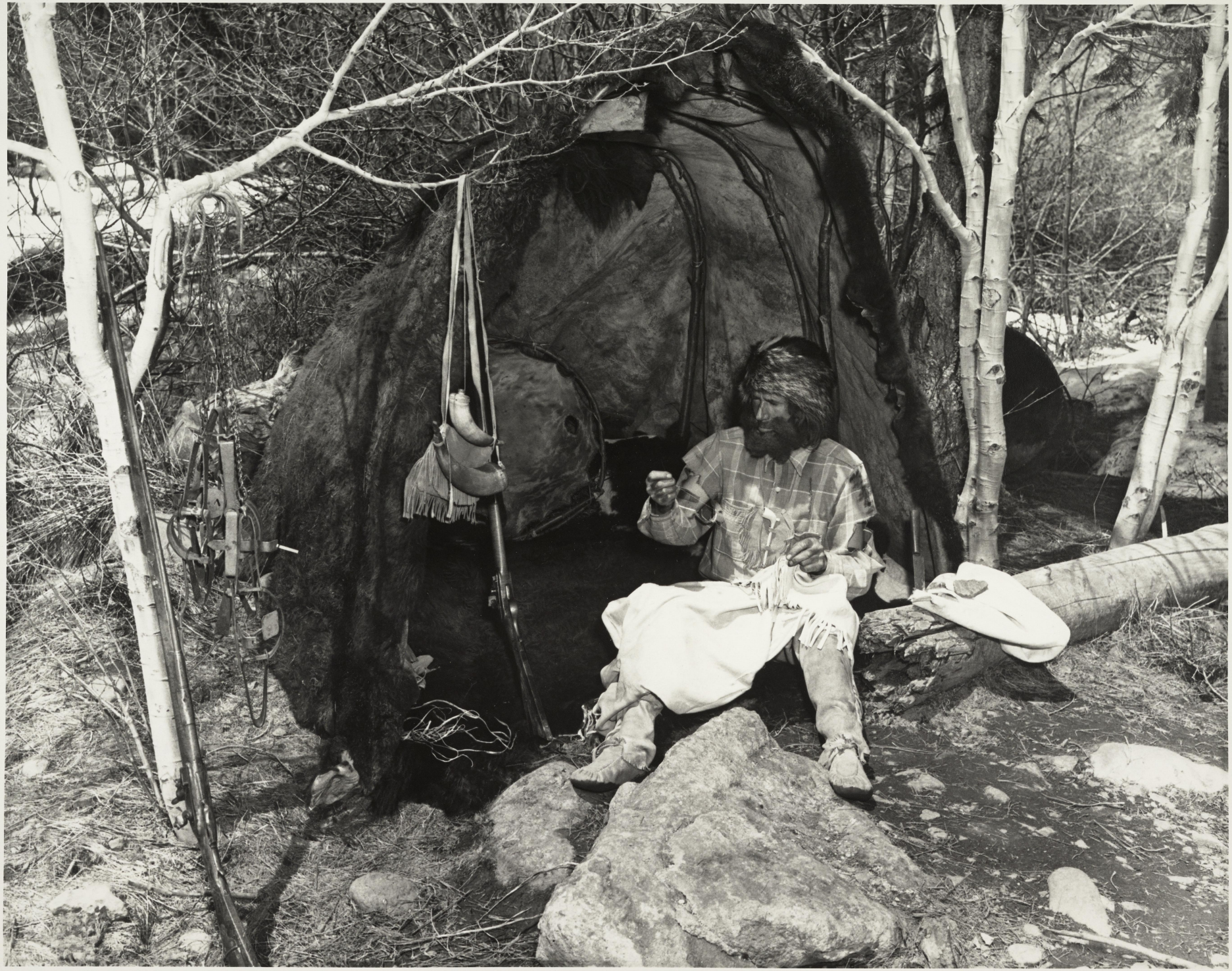
FT-13

FT-14



FT-15

FF-22

FT-23

FT-24

FF-30

KENTUCKIE RIFLE

1. The pioneer who crossed the Allegheny Mountains into the wilderness to establish a new home carried the popular "Kentuckie Rifle" over his arm. It was a flintlock, muzzle-loading gun, economical in its use of lead and powder, and accurate to shoot. It was as much a part of the pioneer's costume as his colorful buckskin clothes, for he always kept it close at hand to protect him against the dangers of the wilderness and to provide him with food.

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PLACER GOLD

1. The discovery of placer gold by James Marshall changed the whole history of early California. Nearly one hundred thousand Americans moved across the great western plains to search for gold during the "days of '49". This great migration resulted in the sudden rise of California to statehood.

During the early gold rush days, the rivers were considered the most likely places to find gold. The miners used very simple tools to mine the gold.

PLACER GOLD

2. The gold pan was the first tool used by the placer miners to separate the gold from the gravel. The miners searched, or prospected, for gold along the river beds. They called the places where they mined, "the diggings" because they had to dig the mixture of gold and gravel before they washed it.

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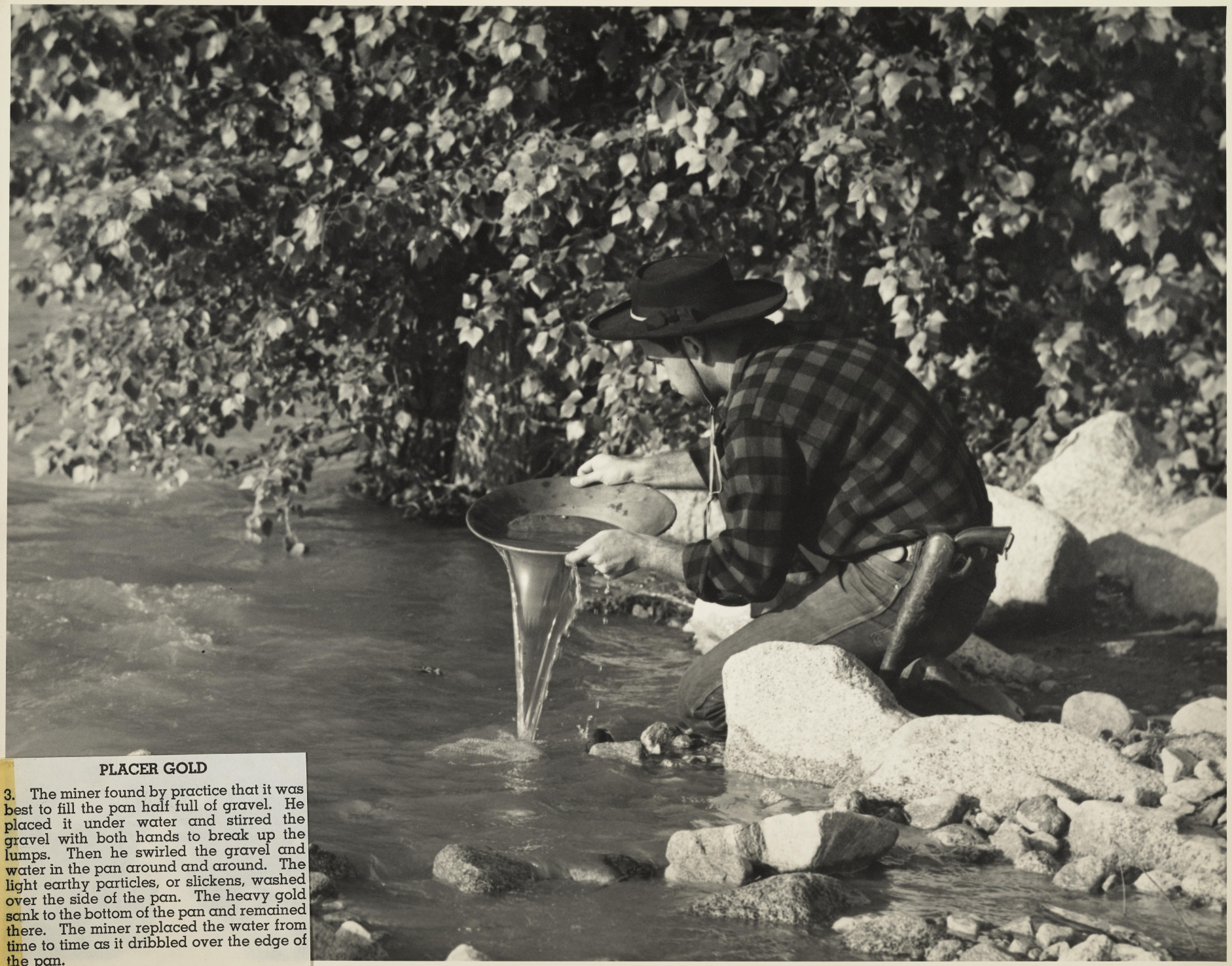
Placer Gold 2



PLACER GOLD

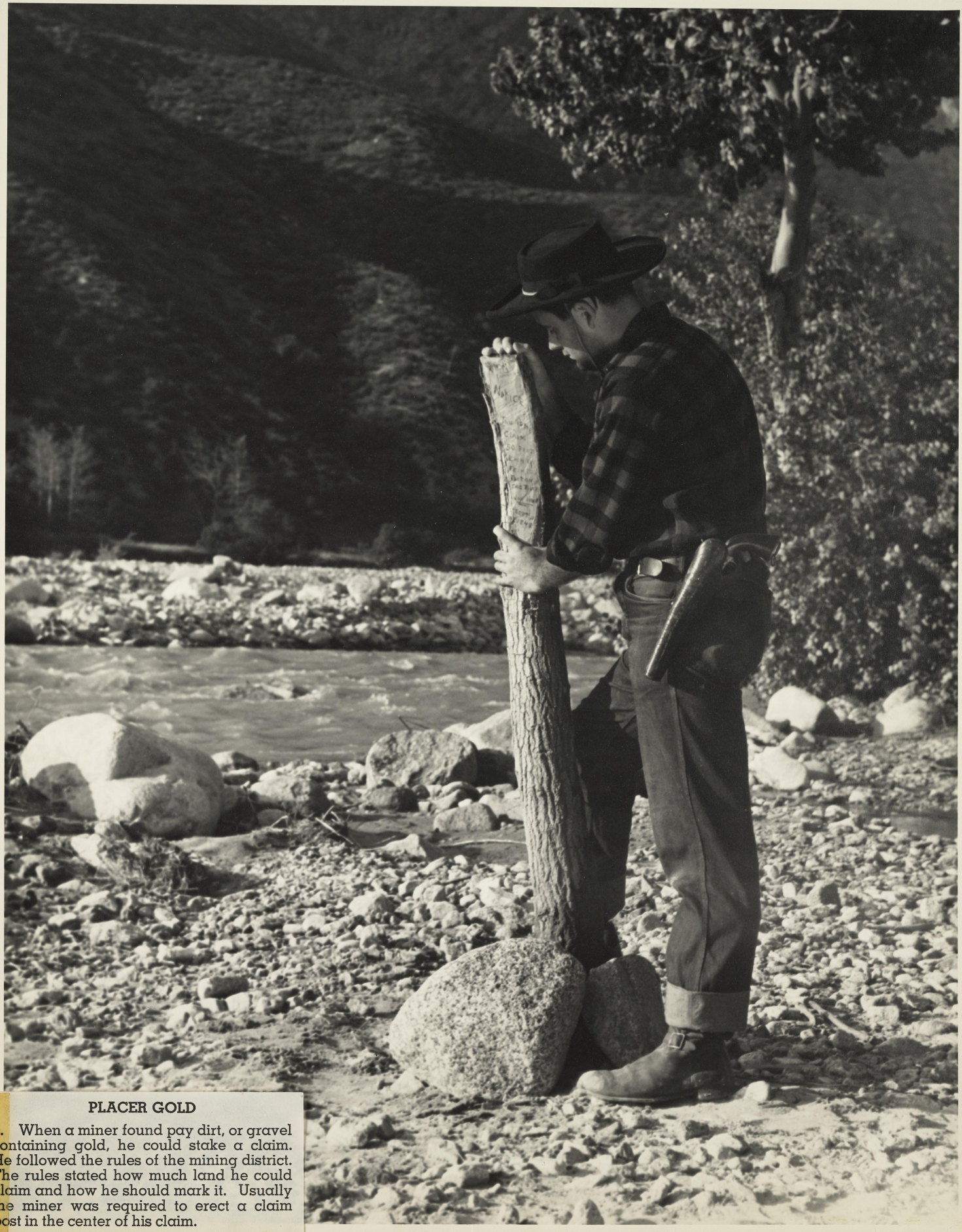
3. The miner found by practice that it was best to fill the pan half full of gravel. He placed it under water and stirred the gravel with both hands to break up the lumps. Then he swirled the gravel and water in the pan around and around. The light earthy particles, or slickens, washed over the side of the pan. The heavy gold sank to the bottom of the pan and remained there. The miner replaced the water from time to time as it dribbled over the edge of the pan.

Placer Gold 3

PLACER GOLD

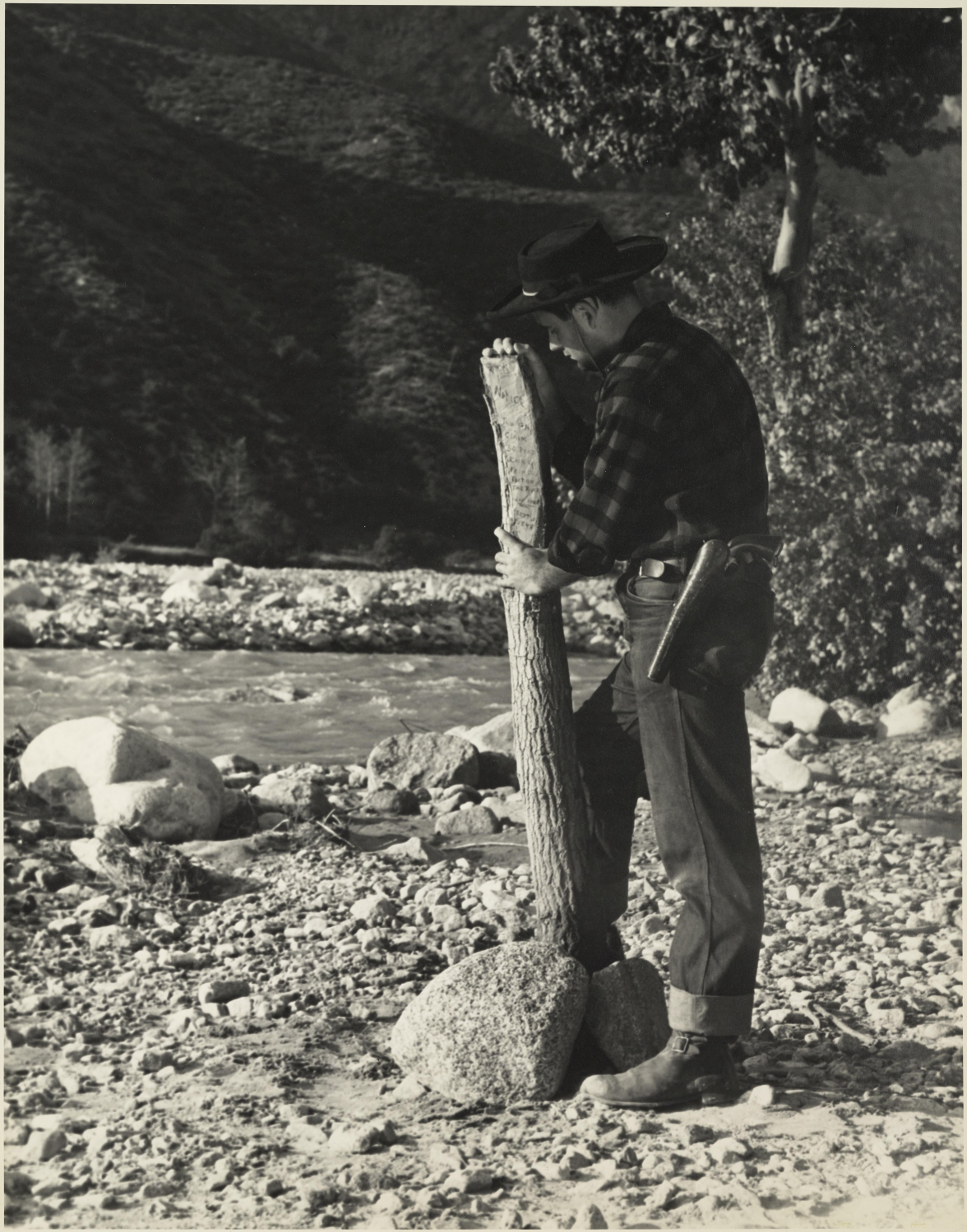
4. The miner removed any rocks from the pan by hand. He watched closely for signs of gold. Any trace of gold was called "color". When the miner handled the pan skillfully, all that remained in it at the end of the washing process was gold. By working hard all day he could wash about fifty pans of gravel. Each pan might yield ten cents to one dollar in gold dust, depending on the richness of the claim.

4



PLACER GOLD

5. When a miner found pay dirt, or gravel containing gold, he could stake a claim. He followed the rules of the mining district. The rules stated how much land he could claim and how he should mark it. Usually the miner was required to erect a claim post in the center of his claim.



PLACER GOLD

When a miner found a vein or gravel containing gold, he could stake a claim. He followed the laws of the mining district. The rules varied, how much land he could claim and how he should mark it. Usually the miner was required to erect a claim post in the center of his claim.

Placer Gold

5

P.D.

PLACER GOLD

6. Miners were often required to erect stone pyramids or drive stakes at the four corners of their claims. The first claims usually bordered on the river and extended to the ridge of the canyon wall. As more miners moved into the area, they met together in common council and redistributed the land so that all could have a place to work.

Placer Gold 6

PLACER GOLD

7. After marking his claim, the miner recorded it in the Registry Book of the mining district. This gave him full rights to the claim.

If the miner needed to be away from his claim for a short time, he left his mining tools on it to show that he was still working the claim. He could protect his claim in this way for three to fifteen days, depending on the rules of his mining camp. The miners respected this sign of ownership.

Placer Gold 7

PLACER GOLD

8. News of a rich strike spread quickly through the mining camps. Men from far and near rushed to the spot to stake new claims. Stores were brought in on pack mules. They were set up in canvas tents. They supplied the miners with food, clothing, and tools in exchange for gold dust and gold nuggets.

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Placer Gold 8

PLACER GOLD

9. The early gold miners worked hard from sunrise to sunset. Washing gold in the pan was a slow, tiring process. The first improvement over this method was introduced by a miner from Georgia. He developed a new tool to wash the gold. It was called the rocker, or cradle.

Placer Gold 9

PLACER GOLD

10. The rocker became a popular tool among the placer miners. It provided a quicker, easier way to wash the gold from the gravel. Miners made their own rockers by hollowing out logs. They bought tools and nails from the camp store.

RD

Placer Gold 10

PLACER GOLD

11. On top of the cradle the miner nailed a square wooden box, called the hopper. The bottom of the hopper was made of a piece of perforated iron to screen the gravel. He nailed cleats across the floor of the cradle. These cross cleats were called riffle bars. He fastened a handle on one side of the cradle and the new tool was ready for use.

Placer Gold 11

PLACER GOLD

12. The miners filled the hopper with gravel. They rocked the cradle gently from side to side while they poured water over the gravel. Earth, sand, and gold were washed through the hopper to the bottom of the cradle. The water washed the lighter materials over the riffles but the heavier black sand and gold were held behind them. The rocking motion kept the lighter materials stirred up and helped separate them from the gold.

PLACER GOLD

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72

Placer Gold

PLACER GOLD

13. One man could work the cradle but two or three men working together could use it more effectively. They used it near the edge of the river for plenty of water was needed.

The miners still used the gold pan. They scooped the gold and sand from behind the riffle bars and washed the mixture in the pan to finish separating the gold.

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Placer Gold 13

PLACER GOLD

14. The cradle soon became too slow for the eager miners. They developed the long tom. This new tool separated the gold from the gravel in the same way as the cradle but it was easier to work. It was placed in the water so that the current of the stream flowed through it. The miners poured in the gravel and stirred it with their shovels to break up the lumps. But they did not have to pour the water by hand or rock the new mining tool.

Placer Gold 14

PLACER GOLD

15. The long tom was made in two sections. The upper section was called the tom. It was often made of a hollowed log. A hole was cut in the bottom of the lower end. The hole was covered with a perforated iron screen. This end of the tom was called the riddle. It screened the gravel in the same way the hopper did on the cradle.

The miner removed the rocks that did not wash through the riddle. He inspected them for color before he threw them away.

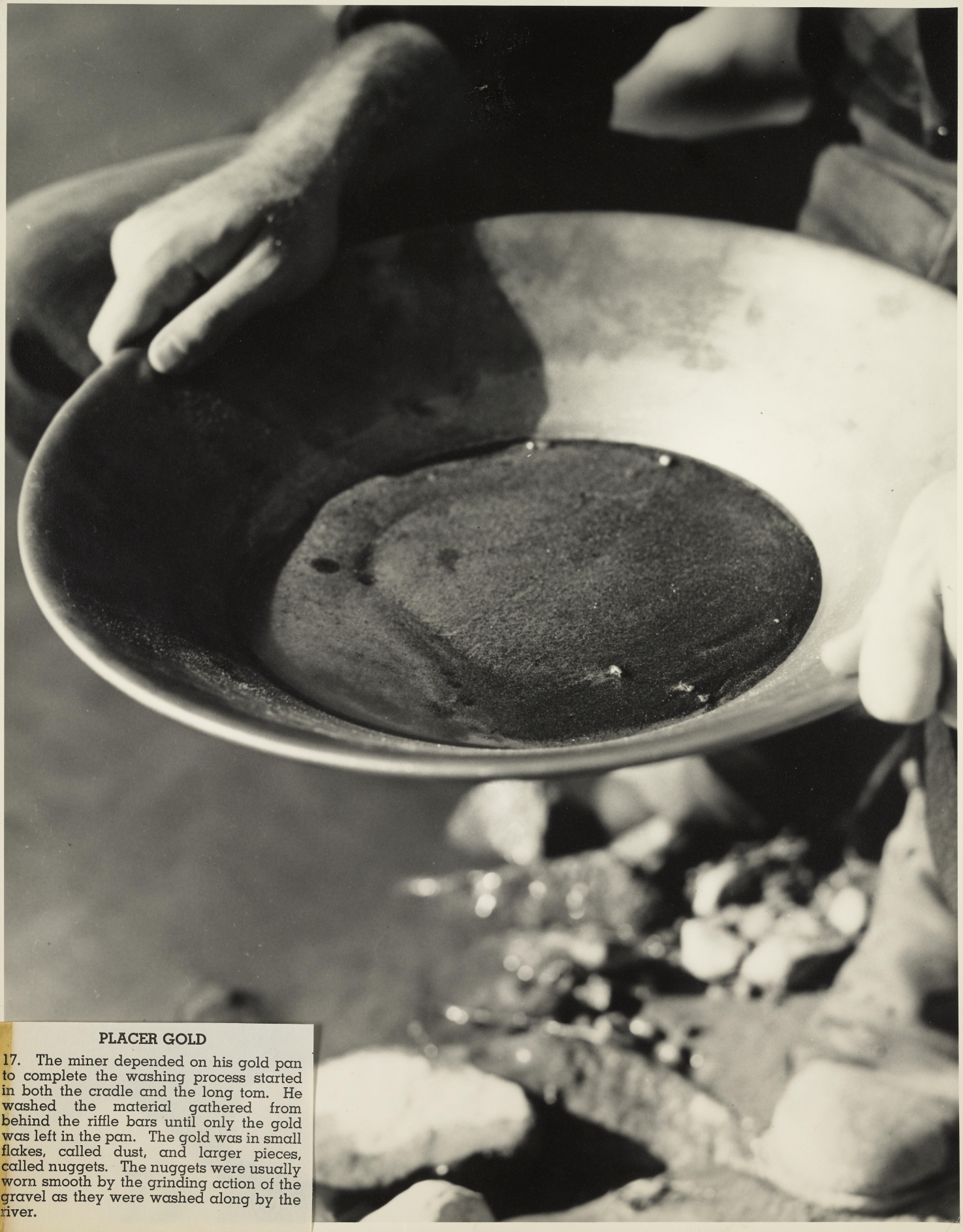
Placer Gold 15

PLACER GOLD

16. The lower section of the long tom was called the riffle box. Cross cleats were fastened to the bottom as they were in the cradle. The force of the water washed the earthy particles through the riddle into the riffle box below. The heavy gold and sand sank to the bottom and were held back of the cleats. The stream washed the lighter materials, called tailings, over the cleats and away. The miner scooped the gold and sand from behind the cleats and finished washing them in his gold pan.

16

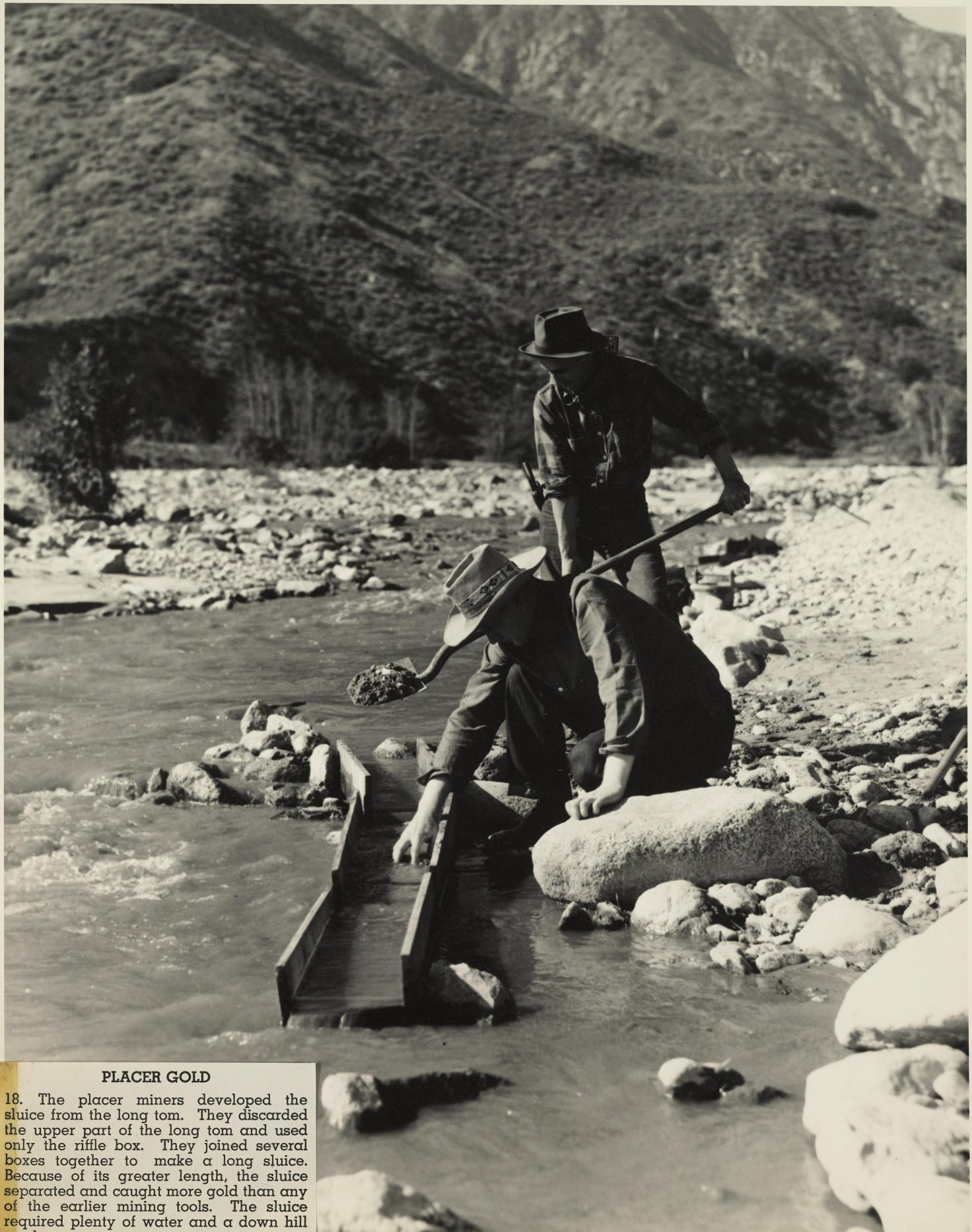
Placer Gold



PLACER GOLD

17. The miner depended on his gold pan to complete the washing process started in both the cradle and the long tom. He washed the material gathered from behind the riffle bars until only the gold was left in the pan. The gold was in small flakes, called dust, and larger pieces, called nuggets. The nuggets were usually worn smooth by the grinding action of the gravel as they were washed along by the river.

Placer Gold 17



PLACER GOLD

18. The placer miners developed the sluice from the long tom. They discarded the upper part of the long tom and used only the riffle box. They joined several boxes together to make a long sluice. Because of its greater length, the sluice separated and caught more gold than any of the earlier mining tools. The sluice required plenty of water and a down hill grade.

Placer Gold 18

PLACER GOLD

19. Sluice boxes were wooden troughs. One end was made narrower so it could be fitted into the wider end of the next box. The sluice could be extended to any desired length by adding more boxes. Cross cleats on the floor of each box caught the heavy gold as the stream washed the dirt along the sluice. Miners usually cleaned out their sluice boxes once a week.

Placer Gold 19

PLACER GOLD

20. Life in the early mining camps was democratic. The miners worked together, sharing tools and helping each other. They held meetings and agreed upon rules to regulate their camps. Every man had an equal right with every other man as long as he followed the rules.

Placer Gold 20

OVERLAND STAGE LINE

1

THE STAGECOACH

1. Stagecoaches carried passengers, mail, and express between the Eastern States and the new land of gold on the Pacific Coast. They provided the rapid system of transportation that was needed to link the new land to the Union in the middle 1800's.

THE STAGECOACH

2. The Butterfield Overland Mail began operations in September, 1858. Coaches traveled from St. Louis, nearly twenty-eight hundred miles over the arid Southwest to San Francisco, in twenty-five days, or less.

In March, 1861 the shorter Central Route replaced the Butterfield Route. Coaches crossed prairie, desert, and two mountain ranges in less than twenty days.

SAN FRANCISCO
SALT LAKE CITY
ST. JOSEPH
ST. LOUIS
FT. YUMA
EL PASO
BUTTERFIELD OVERLAND MAIL ROUTE
CENTRAL OVERLAND STAGE ROUTE

2

3

THE STAGECOACH

4. Horses were trained to work in one position on the stage team. A horse was placed on each side of the pole, or tongue of the coach. The hostler fastened the horses to the pole with pole chains. These horses were called wheelers. The wheelers turned the coach in the direction the driver wished to go.

A doubletree hung on the end of the pole. Do you know how it was used?

4

THE STAGECOACH

5. Two horses were hitched to the doubletree that hung on the end of the pole. They were called leaders. Lead horses were trained to set the pace for the stage team. Two leaders and two wheelers made up the usual team of four horses. Reins were threaded from each pair of horses to the driver's box.

OVERLAND STAGE LINE

5

THE STAGECOACH

6. Coaches picked up passengers and cargo at the stage depot. Stage depots were often located in hotels.

Stages ran on a planned schedule and drivers prided themselves on a well-timed run.

HOTEL
OVERLAND STAGE LINE
U.S. MAIL
U.S. MAIL

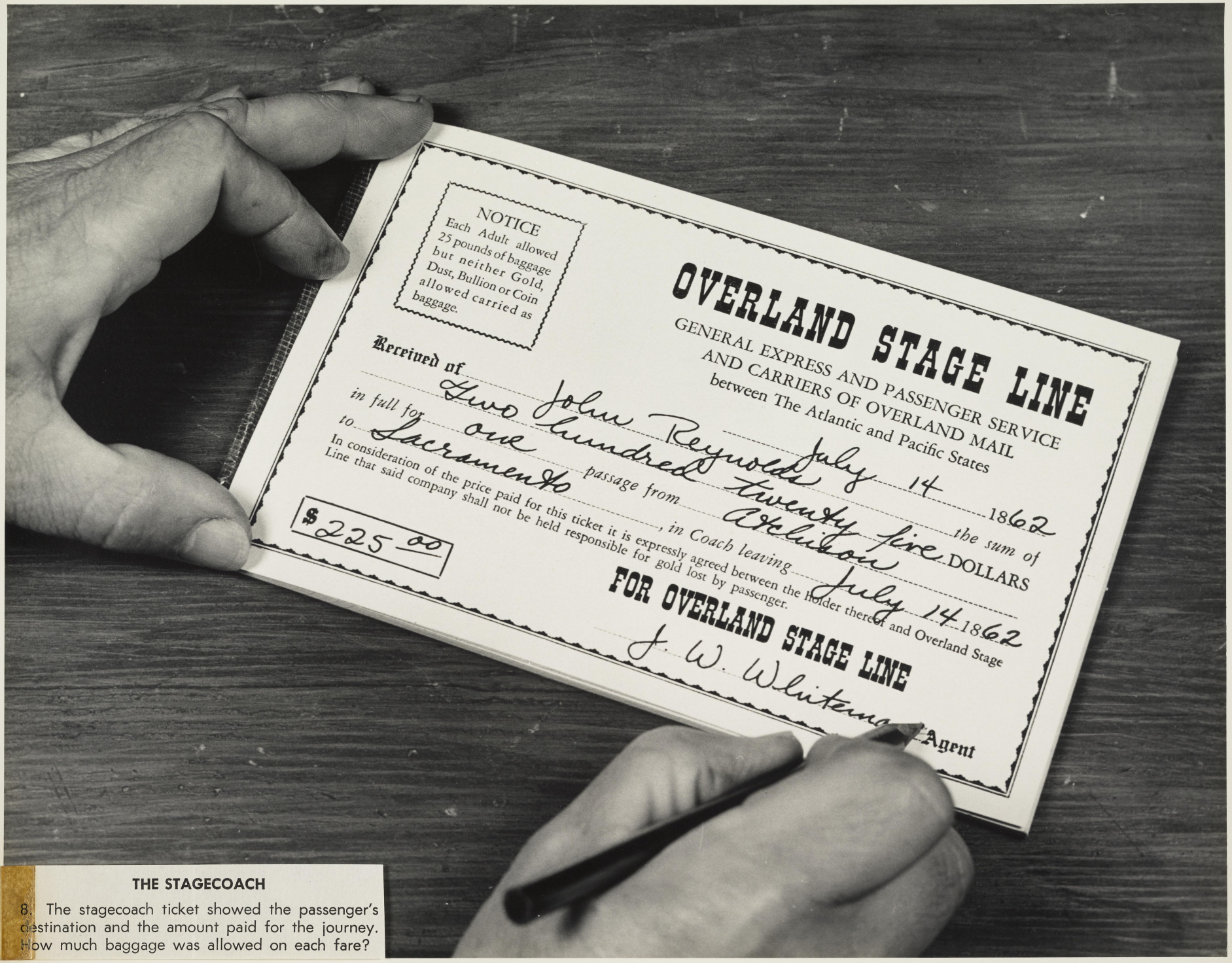
6

THE STAGECOACH

7. Passengers purchased tickets for their journey at the stage depot. Prices varied over the years, but the average cost of an overland trip was two hundred dollars. How much will this passenger pay to travel from Atchison, Kansas to Sacramento, California?

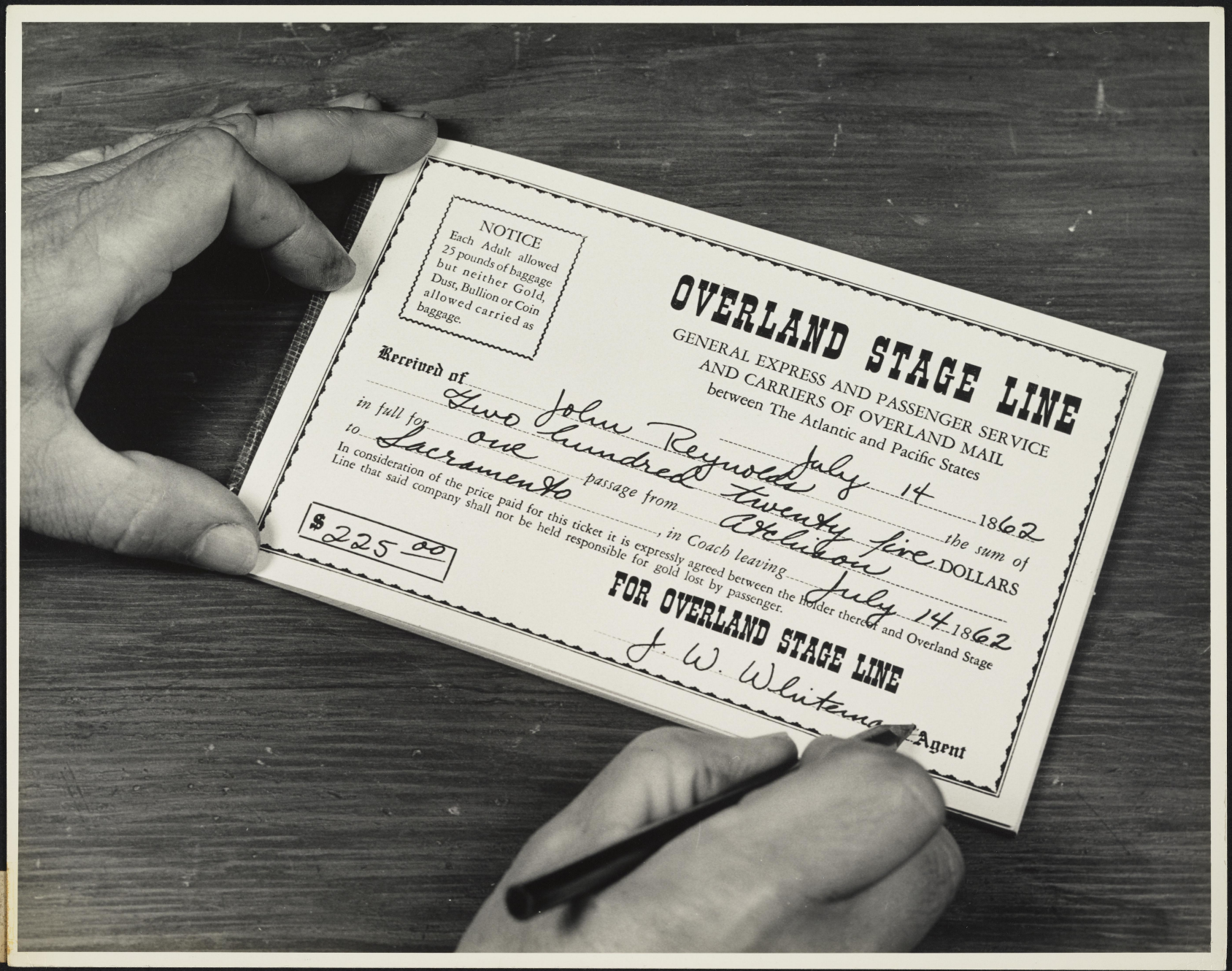
OVERLAND
STAGE
-Carrying the Great Through Mails-
-Between the Atlantic & the Pacific States-
TARIFF OF FARES
From Atchison
To Ft. KEARNEY $35
" JULESBURG 60
" Ft. LARAMIE 75
" Ft. BRIDGER 135
To SALT LAKE CITY $150
" SAND SPRINGS 200
" CARSON CITY 225
" SACRAMENTO 225
Passengers allowed 25 pounds of baggage
FOR PASSAGE, APPLY AT STAGE OFFICE
BEN HOLLADAY
PROPRIETOR.
STAGE
SCHEDULE
ARRIVE
$2000
REWARD
$7,000 IN COIN
REWARD OF $2000
$1000 FOR THE CAPTURE
$1000 FOR THE RECOVERY
BEN HOLLADAY,
Overland Stage Line.
OVERLAND STAGE LINE
FOR OVERLAND STAGE LINE

7



THE STAGECOACH

8. The stagecoach ticket showed the passenger's destination and the amount paid for the journey. How much baggage was allowed on each fare?


NOTICE
Each Adult allowed 25 pounds of baggage but neither Gold, Dust, Bullion or Coin allowed carried as baggage.
OVERLAND STAGE LINE
GENERAL EXPRESS AND PASSENGER SERVICE
AND CARRIERS OF OVERLAND MAIL
between The Atlantic and Pacific States
Received of John Reynolds July 14 1862
in full for Two hundred twenty five DOLLARS the sum of
to Sacramento passage from Atchison, in Coach leaving July 14 1862
In consideration of the price paid for this ticket it is expressly agreed between the holder thereof and Overland Stage Line that said company shall not be held responsible for gold lost by passenger.
$225 00
FOR OVERLAND STAGE LINE
J. W. Whitema
Agent

8

THE STAGECOACH

9. Baggage was carried in the leather-covered compartment on the rear of the coach. This compartment was called the boot.

AND STAGE LINE
U.S.
MAIL

THE STAGECOACH

10. Trunks, carpet bags, and mail were crowded into the leather boot. Mail was the most important part of the load because the overland stage lines were supported by government contracts to carry mail across the frontier.

U.S.
MAIL

THE STAGECOACH

11. Stagecoaches were made to hold nine passengers. Extra passengers rode on top. Baggage was also carried on top of the coach, and sometimes crowded inside with the passengers.

OVERLAND STAGE LINE

11

THE STAGECOACH

12. The Wells Fargo & Co. strong box was an important item of express cargo. Gold and other valuables were locked in the sturdy green box. The strong box was usually carried under the driver's seat.

WELLS FARGO
& CO.
HOTEL

THE STAGECOACH

13. The American stagecoach was built to stand the wear of frontier roads. The heavy body was hung on leather straps, called thoroughbraces. The thoroughbraces allowed the coach to swing forward and back with each bump in the road and lessened the strain on the horses. The brake was used to slow the coach on downhill grades. The driver worked the brake lever with his foot to lock the brake shoes against the rear wheels.

The closed coach was used on most stage lines.

OVERLAND STAGE LINE

THE STAGECOACH

14. The mud wagon, or celerity coach, had a lightweight open body. It was used when the roads were muddy, or to pull through sandy stretches. Why do you think this type of coach was useful on the Butterfield Overland Mail route?

THE STAGECOACH

15. Way stations were spaced about fifteen miles apart along the stage road. Here the tired horses were replaced by fresh teams. The stop at a way station was a time for fast action, and the coach was soon on its way.

STAGE LINE

15

THE STAGECOACH

16. Home stations were located about fifty miles apart along the stage line. Here were blacksmith shops, extra horses and supplies, and expert craftsmen to keep the stages in good repair. The pioneer families who maintained these lonely outposts welcomed the weary passengers. The travelers were glad to rest and purchase a hot meal after their long ride. Rooms were available for those who wished to wait over for the next stage.

A driver's run ended at the home station, and a new driver took over the reins when the coach and fresh team continued the journey.

STAGE LINE

THE STAGECOACH

17. The stage driver was an expert horseman. He worked his coach and team with the ease that came from long experience. He kept a watchful eye on each horse and signaled his commands through the touch and pull of the reins. It took strong sensitive hands to control the ribbons of leather. Passengers depended on the skill and daring of the driver to guide them safely on their way.

E LINE

THE STAGECOACH

18. The overland stagecoach traveled day and night to deliver its cargo on schedule. Coaches averaged five miles an hour over the frontier roads. Horses were driven at a run on good stretches to make up time lost on hazardous roads where chuck-holes, rocks, perilous grades and gullies slowed the heavy coach.

18

THE STAGECOACH

19. The Wells Fargo strong box attracted outlaws and many coaches were halted by the rough commands of holdup men.

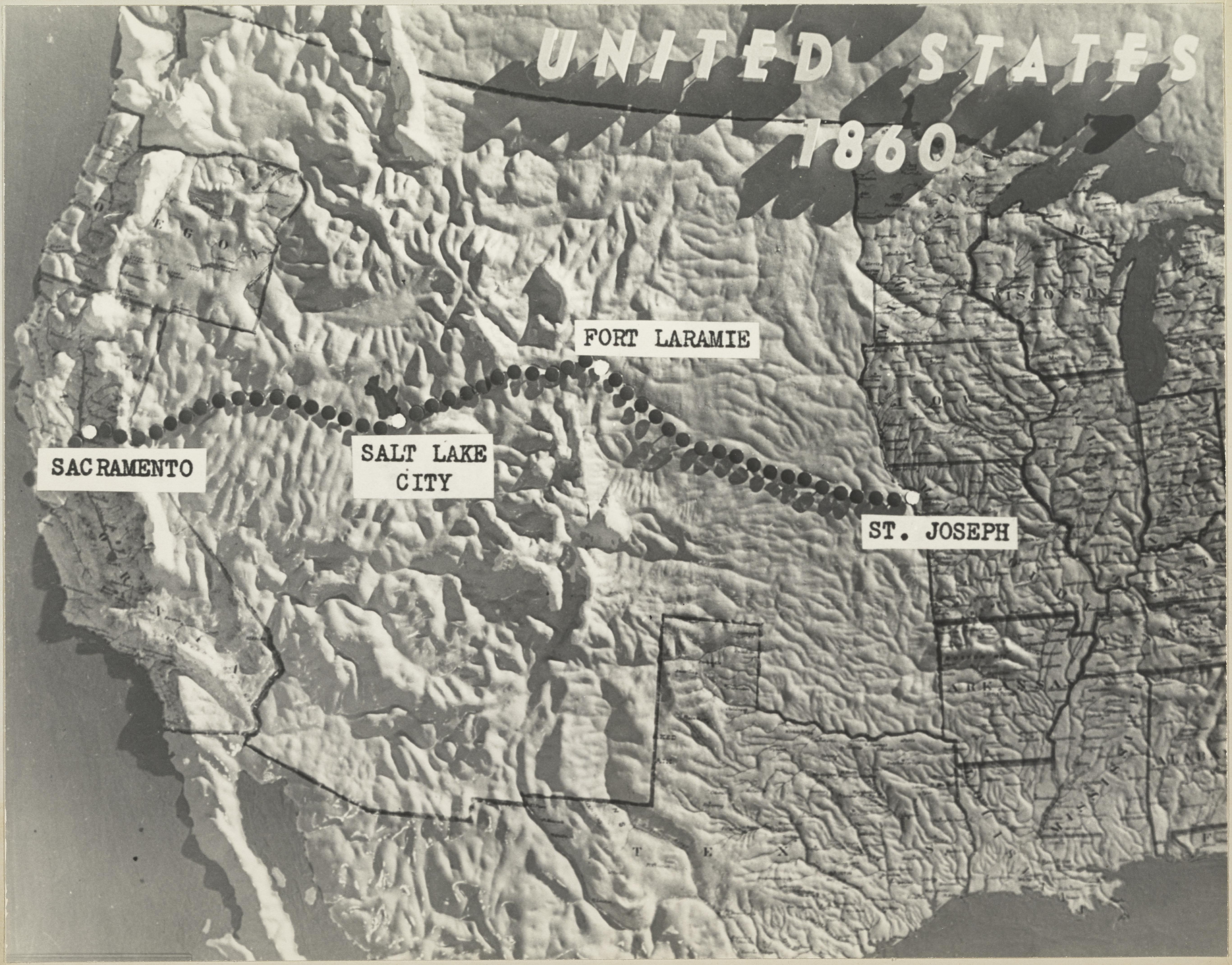
What other hazards might be encountered on a stagecoach journey?

WELLS FARGO & CO.

THE STAGECOACH

20. The stagecoach was the safest and fastest form of transportation between the Atlantic and Pacific States for a period of ten years. In May, 1869 the railroad replaced the overland stage and began a new era of transcontinental transportation.

However, the stagecoach continued to serve the West until the early 1900's. Blazing trails and encouraging new settlements, the stagecoach played an important part in the expansion of our nation.


UNITED STATES
1860
FORT LARAMIE
SACRAMENTO
SALT LAKE CITY
ST. JOSEPH

PONY EXPRESS

1. The rush to the gold fields of California pushed the frontier of the United States west to the Pacific. The western pioneers were separated from their government and old homes in the east by a vast, unoccupied wilderness. The Pony Express was established to carry news and letters swiftly across this wilderness.

The pony trail started at St. Joseph, Missouri. It followed the Platte River valley, crossed the Rocky Mountains, circled the Great Salt Lake, and passed over the Sierras to Sacramento.

PONY EXPRESS

2. Delivery of letters and news dispatches to California had required months of travel by sailing ships. Later they were carried in thirty days by mule train. Still later, Overland Stages made delivery in twenty days. The Pony Express offered delivery in ten days.

Many of the first Pony Express offices were located in general stores.

MAIL
OVERLAND STAGE
AR
LV
DENVER
SALT LAKE CITY
PONY EXPRESS

2

MAIL

3

PONY EXPRESS

4. No special Pony Express stamps were used in the first months of the express. The postmaster marked the envelopes with a running horse seal when they were dispatched at either end of the trail. On the face of the envelope he wrote the fee charged for carrying it.

PONY EXPRESS

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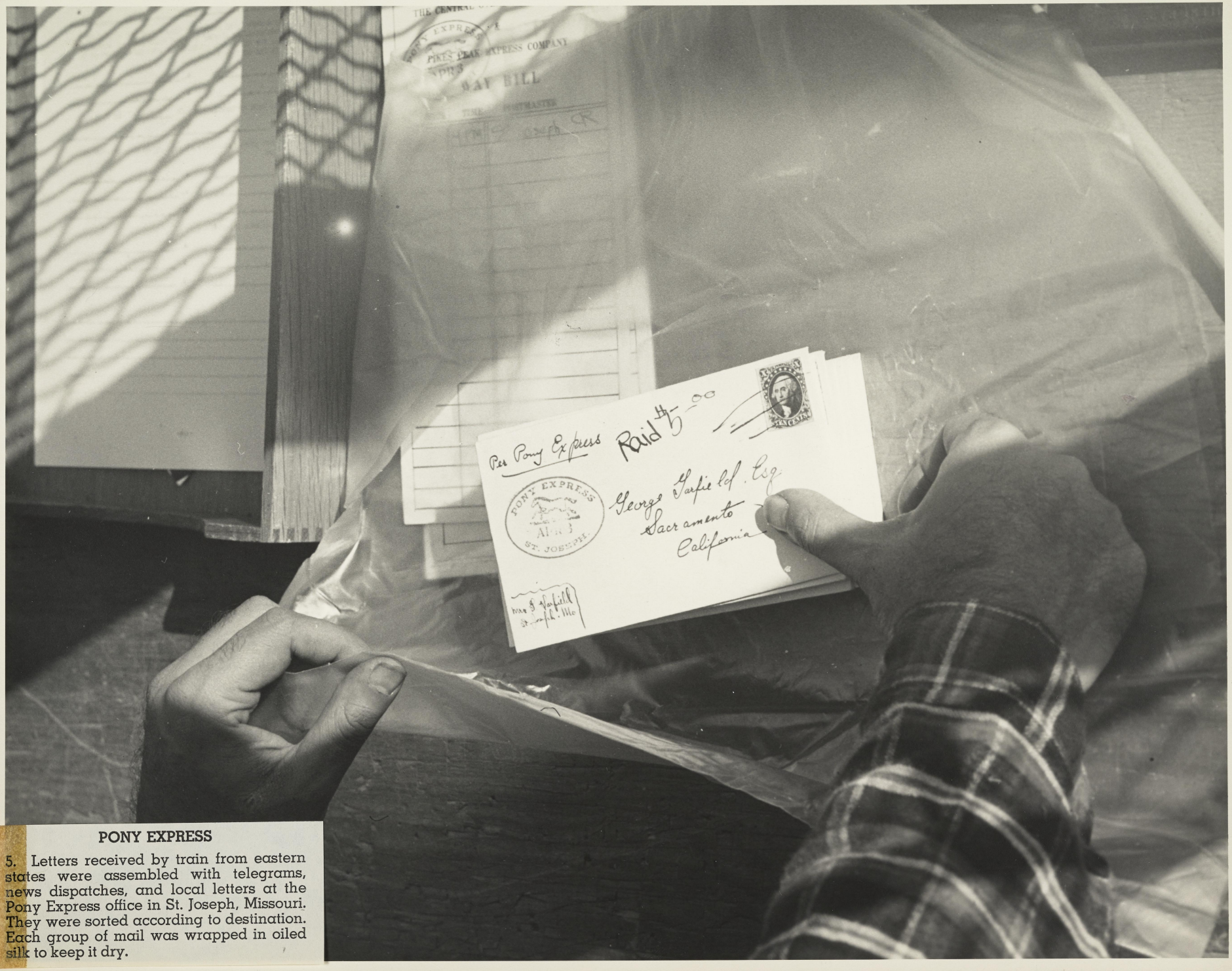
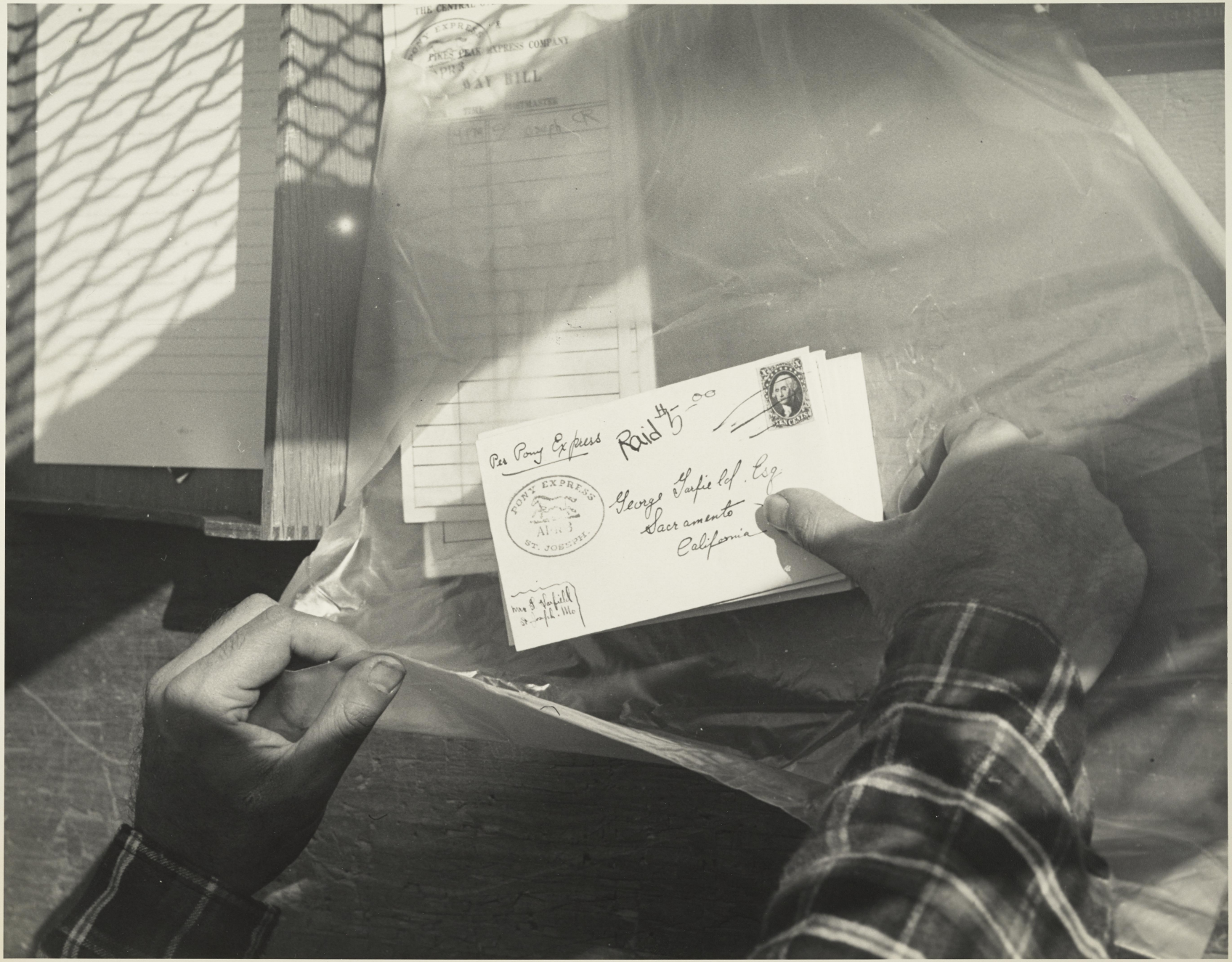
PE

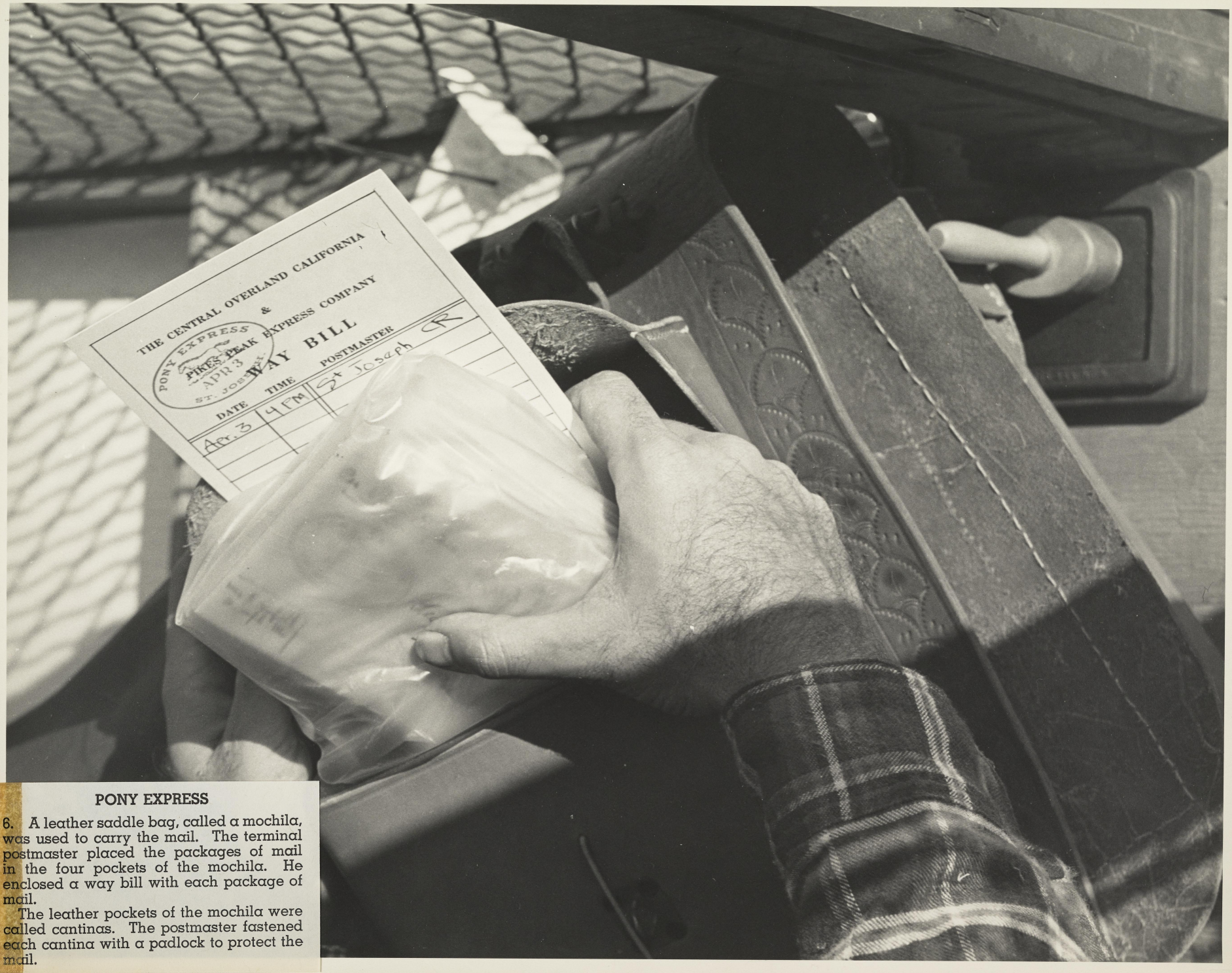


PONY EXPRESS

5. Letters received by train from eastern states were assembled with telegrams, news dispatches, and local letters at the Pony Express office in St. Joseph, Missouri. They were sorted according to destination. Each group of mail was wrapped in oiled silk to keep it dry.


PONY EXPRESS
PIKES PEAK EXPRESS COMPANY
BAY BILL
Per Pony Express
Paid $5.00
PONY EXPRESS
ST. JOSEPH
George Garfield Esq.
Sacramento
California

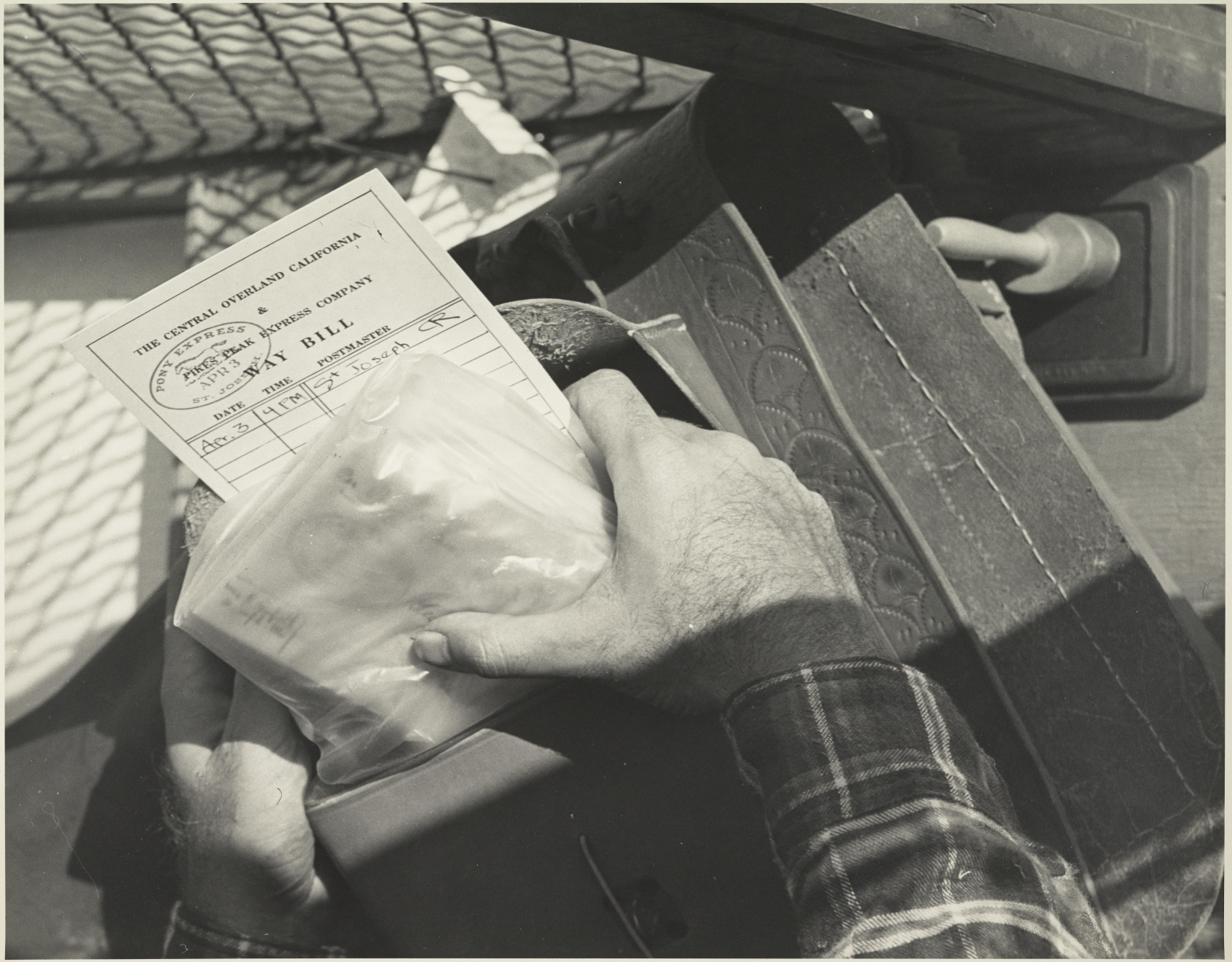
5



PONY EXPRESS

6. A leather saddle bag, called a mochila, was used to carry the mail. The terminal postmaster placed the packages of mail in the four pockets of the mochila. He enclosed a way bill with each package of mail.

The leather pockets of the mochila were called cantinas. The postmaster fastened each cantina with a padlock to protect the mail.


THE CENTRAL OVERLAND CALIFORNIA
&
PIKES PEAK EXPRESS COMPANY
WAY BILL
PONY EXPRESS
PIKES PEAK
APR 3
ST JOSEPH
DATE
TIME
POSTMASTER
Apr. 3
4 PM
St Joseph

6

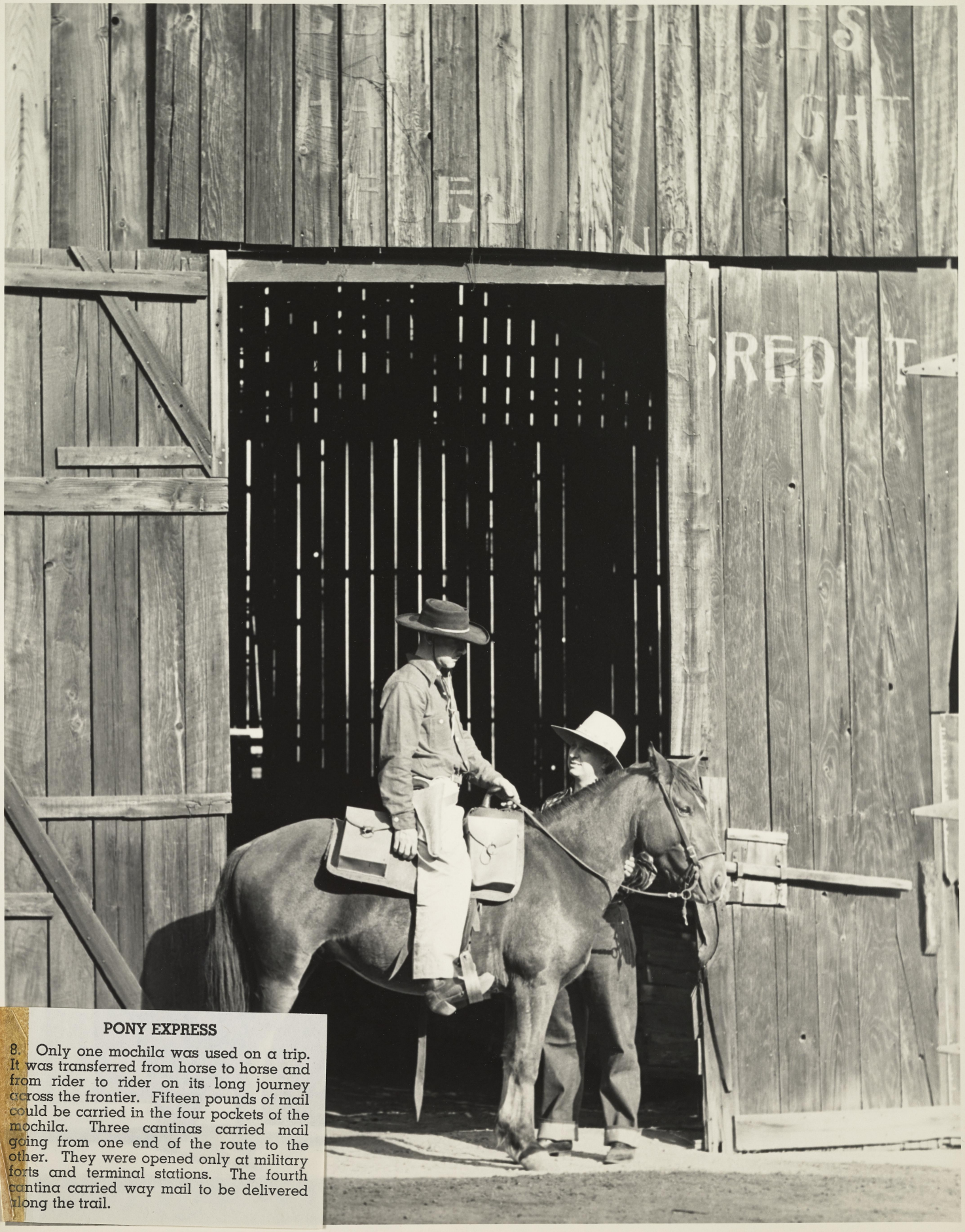
PE

PONY EXPRESS

7. The Pony Express riders were called couriers. They were responsible for the safe, fast delivery of the mochila. They were young men, chosen for their nerve, horsemanship, and frontier experience. Their work was full of adventure and danger. The couriers were armed but they depended more on the speed of their ponies for protection.

MAIL
OVERLAND
STAGE
AR
LV
DENVER
SALT LAKE CITY
PONY EXPRESS

7



PONY EXPRESS

8. Only one mochila was used on a trip. It was transferred from horse to horse and from rider to rider on its long journey across the frontier. Fifteen pounds of mail could be carried in the four pockets of the mochila. Three cantinas carried mail going from one end of the route to the other. They were opened only at military forts and terminal stations. The fourth cantina carried way mail to be delivered along the trail.

REDIT

8

PE

PONY EXPRESS

9. Couriers passed the mochila on to the next rider at home stations. The home station keeper acted as a postmaster. He unlocked the cantina used for way mail and took out letters addressed to his station. Sometimes he had new letters to add to the package. He signed the way bill and wrote the date, time, and name of his station across it. He relocked the cantina and the next courier sped on his way.

9

PE

PONY
EXPRESS

11

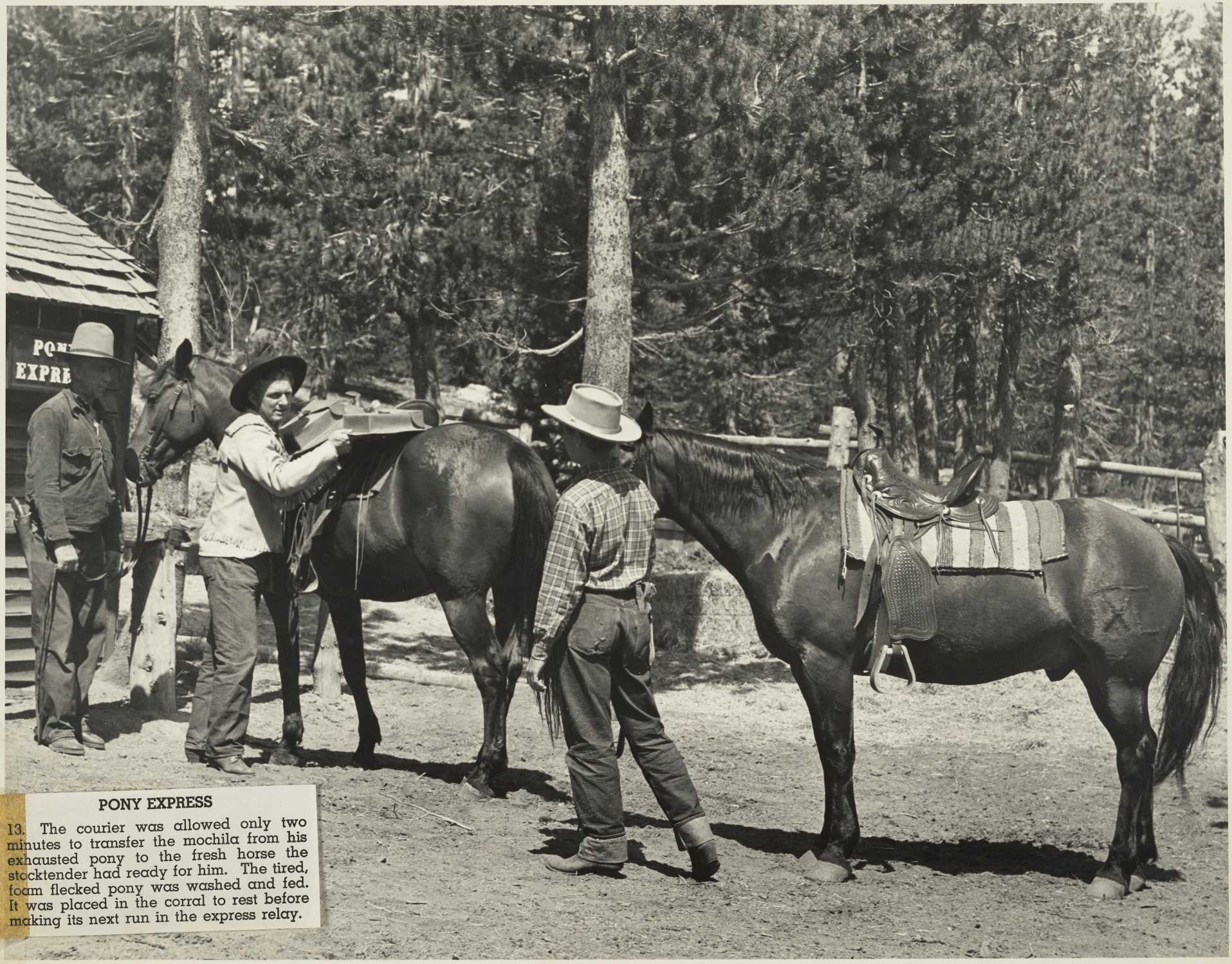
PE

PONY EXPRESS

12. The courier's arrival at the station was the signal for quick action. There was little time for words. The station attendant sometimes had information about the condition of the trail ahead to tell the courier. The courier often shouted news from the other stations as he quickly changed horses.

PONY
EXPRESS

PE



PONY EXPRESS

13. The courier was allowed only two minutes to transfer the mochila from his exhausted pony to the fresh horse the stocktender had ready for him. The tired, foam flecked pony was washed and fed. It was placed in the corral to rest before making its next run in the express relay.

PONY EXPRESS

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13

PE

PONY
EXPRESS

14

PONY EXPRESS

15. The horses used by the Pony Express were carefully selected for their speed and endurance. Western bred, half wild Mustangs were preferred by many couriers on the plains and in the desert regions. The horses used in the mountains were chosen for their strong lungs and sturdy leg muscles. Surefootedness and endurance were more important than speed in the snow filled, rocky passes of the Sierra Nevada Mountains.

RE

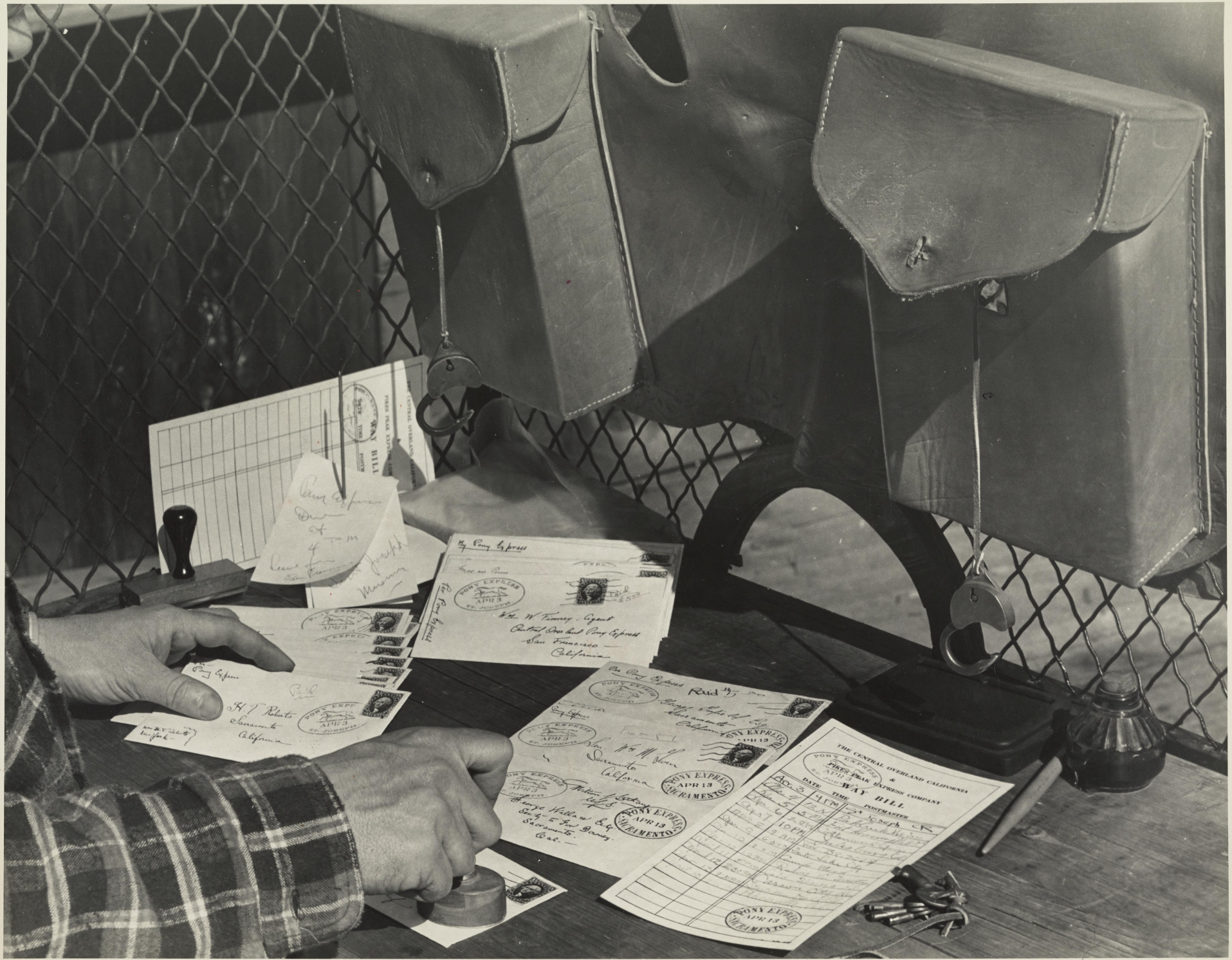
PONY EXPRESS

16. The tenth day of travel found the mud spattered mochila on its final relay over the Sierra Nevada Mountains to Strawberry Valley, on to Placerville, and finally to Sacramento. It carried news and letters over a shrinking frontier in ten days.

PONY
EXPRESS

16

PE


THE CENTRAL OVERLAND CALIFORNIA
&
PIKES PEAK EXPRESS COMPANY
WAY BILL
DATE
TIME
POSTMASTER
PONY EXPRESS
APR 13
ST. JOSEPH
SACRAMENTO
Sacramento
California
San Francisco
Wm. W. Finney, Agent
Central Overland Pony Express

17

PE

18